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Reports of rapporteurs

Report of the UN/CEFACT Rapporteur for Africa (2013–2014)

I. Introduction

1. The period 2013–2014 has been fairly busy in the African region with, inter alia, the organization of the second international conference on Single Windows.

2. The following is a summary of the UN/CEFACT Rapporteur's activities.

II. Finalization of the Guidelines for Single Window Implementation, February 2013, Saly, Senegal

3. A workshop on the Guidelines for Single Window Implementation in Africa was held in Saly, Senegal, from 7 to 10 February 2013. Its outcome was a finalized version of the Guidelines, which was then published online at www.swguide.org in April 2013, since when there has been a sharp increase in the number of hits on the website. It is planned to update the Guidelines every two years.

III. Seventh Executive Committee meeting and fourth General Assembly of the African Alliance for e-Commerce, 7 to 9 April 2013, Dakar, Senegal

4. The African Alliance for e-Commerce (AAEC) held its seventh Executive Committee meeting and fourth General Assembly on 8 and 9 April 2013 at the Hotel Amaryllis, Saly, Senegal.

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5. The meetings were attended by representatives of: Benin, Burkina Faso, Cameroon, Côte d'Ivoire, the Democratic Republic of the Congo, Egypt, Ghana, Kenya, Libya, Madagascar, Morocco, Senegal and Tunisia.

6. They produced the following outcomes:

A. Executive Committee

- Consideration of new applications for membership (Benin, Egypt and the West African Economic and Monetary Union (WAEMU));
- Process of validation of the Guidelines for Single Window Implementation in Africa;
- Review of the action plan to recruit a Permanent Secretary for AAEC;
- Presentation of reports of awareness-raising workshops on Single Window implementation in Africa;
- Presentation and approval of the technical and financial report;
- Preparation of the International Single Window Conference in Antananarivo, Madagascar.

B. General Assembly

- The candidatures of the Société d'Exploitation du Guichet Unique du Bénin (SEGUB) (Benin), the Egyptian International Trade Point (EIPT), the Autonomous Port of Abidjan (PAA) and WAEMU were presented. As no reservations were expressed, the General Assembly approved them.

IV. Third International Single Window Conference, 16 to 18 September 2013, Antananarivo, Madagascar

7. Together with the Malagasy customs agency and GasyNet, AAEC organized the Third International Single Window Conference at the Carlton Anosy Hotel, Antananarivo, Madagascar, from 16 to 18 September 2013. The theme of this third Conference was "Single Window: Systems interconnectivity, boosting trade facilitation".

8. The event was supported by the World Bank, the United Nations Economic Commission for Africa, the United Nations Economic and Social Commission for Asia and the Pacific, the African Development Bank and the World Customs Organization.

9. The Conference attracted a total of 96 delegates from different countries around the world, including: Angola, Benin, Burkina Faso, Cameroon, the Comoros, Côte d'Ivoire, the Democratic Republic of the Congo, Ethiopia, France, Gabon, Ghana, Mauritius, Kenya, Libya, Malawi, Mali, Nigeria, Madagascar, Morocco, Mozambique, Nigeria, Senegal, Seychelles, Singapore, Switzerland, Tunisia, Togo and Yemen. There was also a large number of local participants, with more than 200 guests.

10. The following issues were addressed during the Conference:

- Single Window: Systems interconnectivity, boosting trade facilitation;
- Africa: Prospects and projects;
- Single Windows and regional integration;

- Technical and regulatory requirements;
- Funding and sustainability;
- Best practices;
- Presentation of the AAEC Guidelines for Single Window Implementation.

11. AAEC held its eighth Executive Committee meeting alongside the Conference on 18 September 2013. The meeting was attended by 20 participants from AAEC member countries (Benin, Cameroon, Côte d'Ivoire, the Democratic Republic of the Congo, Ghana, Kenya, Madagascar, Mali, Senegal and Tunisia).

V. National workshops to raise awareness of Single Windows

12. AAEC held four workshops in 2013 to raise awareness of the Single Window concept in: Uganda (21 and 22 March); Burundi (25 and 26 March); Niger (11 and 12 June); and Egypt (24 and 25 November). Co-organized by each country's ministry responsible for trade, the workshops brought together the different agencies involved, including banks, ports, customs and government agencies and chambers of commerce. They provided an opportunity to share best practices from Single Window implementation between operators and countries with projects in the area.

VI. Links with other international organizations

A. International Trade Centre

13. On 24 October 2013, the AAEC Chairperson visited the Division of Business and Institutional Support of the International Trade Centre (ITC). He introduced AAEC and took part in discussions on possible avenues of collaboration between the two organizations, focusing on the idea of setting up an e-commerce platform for the WAEMU zone. ITC committed itself to mobilizing potential funding partners for the platform.

B. United Nations Conference on Trade and Development

14. The Chairman made a working visit to the Palais des Nations in Geneva on 25 October 2013 to discuss possible areas for partnership with the United Nations Conference on Trade and Development (UNCTAD). Both organizations expressed their willingness to jointly organize a seminar for AAEC members on the legal implementation of electronic transactions in Single Windows. The seminar should take place in the second half of 2014.

C. Convention on International Trade in Endangered Species of Wild Fauna and Flora

15. AAEC visited the headquarters of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in Geneva on 24 October 2013 to discuss the possibility of AAEC members using the electronic version of CITES permits. The idea was raised of setting up a project with pilot countries in Africa during 2014. The two organizations are currently working on the project outline.

D. African Development Bank

16. The Chairman, accompanied by Mr. Isidore Biyiha, AAEC Vice-Chairman and Chairman-Director-General of the Single Window for Foreign Trade Operations (GUCE) of Cameroon, made a working visit to the African Development Bank (AfDB) from 17 to 19 June 2013 to promote AAEC and to present the peer review project. Following the Bank's call for proposals, AAEC submitted the projects below for funding:

- Establishment of a foreign trade portal in Africa;
- Establishment of a continental certification authority (public key infrastructure (PKI)) platform;
- Establishment of an electronic document exchange platform.

E. Universal Postal Union

17. The Universal Postal Union (UPU) has decided to launch a project to develop e-commerce in Africa through the postal network. The head of the Africa and Least Developed Countries regional programme indicated the Union's wish to make AAEC a privileged partner in this project. An official letter is to be sent to AAEC inviting it to join the working group and submit a joint project to WAEMU.

F. Pan-Asia e-Commerce Alliance

18. In January 2014, AAEC and the Pan-Asia e-Commerce Alliance signed a memorandum of understanding to facilitate future negotiations on sharing experiences and solutions and adopting joint pilot projects in the two regions.

VII. Ongoing projects

A. Pilot projects to set up an electronic certificate of origin exchange platform between Senegal, Côte d'Ivoire, Cameroon and Chad or the Congo

19. The project to set up an electronic certificate of origin exchange platform in the WAEMU zone (Senegal/Côte d'Ivoire) and the Central African Economic and Monetary Community zone (Cameroon/Chad or the Congo) is intended to ensure that applications for, and issuance and presentation of, certificates of origin between those countries becomes simpler and more secure and thus to facilitate trade in the two zones. The establishment of the platform is also an excellent opportunity to reduce obstacles to the free movement of goods in the regional economic communities.

B. Assessment of the impact of Single Windows on the movement of goods through Africa's ports

20. The World Bank has decided to assist AAEC with a peer review project to assess the impact of Single Windows on the movement of goods in the target countries. The aim is to produce an objective assessment highlighting all the positive points and identifying any weaknesses.

21. The first group of target countries for the peer review is:

- Senegal (Gaindé 2000);
- Cameroon (e-GUCE);
- Madagascar (GasyNet).

VIII. Planned projects

A. Continental electronic document exchange platform for inter- and intra-community trade procedures

22. The aim of this project is to reduce delays and improve the reliability of cross-border trade procedures.

B. Establishment of a continental infrastructure to pool PKI resources

23. A continental authority should allow Africa to reduce the cost of e-commerce transactions by means of an infrastructure that would enable all countries to issue electronic documents with an electronic signature.

C. Portal for foreign trade procedures in Africa

24. The objective is to promote intra-African trade through a portal giving access to trade procedures, costs, players in the logistics chain and the top 100 importers and exporters in each African country.

D. Extension of awareness-raising workshops on the Single Window concept

25. AAEC is seeking new donor partners to finance workshops in other countries.

IX. Participation in international meetings

A. Information and communication technology awareness-raising days for members of parliament, Ndjamena, Chad, 5 and 6 December 2013

26. A workshop was held in Ndjamena, Chad, on 5 and 6 December 2013 to raise awareness of the issues involved in moving from audiovisual to digital media and the information society. The objective of this workshop for members of the Chadian General Assembly was to raise their awareness of the major issues in digital technology and to provide them with critical information they need to adopt effective legislation that will help promote the development of information and communication technologies in the country.

27. Gaindé 2000 made a presentation on "Africa and the challenges of e-commerce".

B. 2013 African Internet Governance Forum (United Nations Economic Commission for Africa). 22 to 26 September 2013

28. A forum on Internet governance organized by the United Nations Economic Commission for Africa in Nairobi from 22 to 26 September 2013 brought together several countries and experts.

C. Global Trade Facilitation Conference, 18 and 19 November, Bangkok, Thailand

29. The United Nations Economic and Social Commission for Asia and the Pacific organized a forum on the facilitation of global trade on 18 and 19 November 2013. The theme of the forum was "Beyond Single Window: Paperless Supply Chains for Trade Facilitation and Inclusive Development". The meeting was an opportunity to publicize AAEC and to discuss the challenges and obstacles to trade facilitation in Africa, as well as to promote the AAEC Guidelines for Single Window Implementation.

X. Conclusions and recommendations

30. The activities of the Rapporteur for Africa are currently carried out by the chair of the African Alliance for e-Commerce. Funding needs to be found for the Alliance's activities in the forthcoming period.

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Report of the Rapporteur for Asia and the Pacific

I. Introduction

1. This is the report of the Rapporteur for Asia and the Pacific, covering several important sessions on trade facilitation in the region since the nineteenth session of the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) in June 2013.

2. One of the main themes in the Asia-Pacific region is that data communication is being continuously and rapidly driven by the growth of global supply chains utilizing e-business between trading partners and related stakeholders. This has given rise to many challenges in creating and developing the information and communication technology infrastructures and networks that play an important role in governing high-level transparent global supply/value chains. Therefore, the countries and regional bodies in the Asia Pacific region continue their efforts to realize the potential of electronic business and trade facilitation for regional development.

II. Asia Pacific Council for trade facilitation and electronic business (AFACT): Plenary meeting, November 2013

3. AFACT is positioned to play a very important role in promoting trade by integrating electronic business through the uses of international standards and best practices – especially those developed and promoted by UN/CEFACT – in the Asia Pacific region. A majority of active members of AFACT continued to pursue joint activities beneficial for all the member countries. All look forward to developing ways and means both to help each other in collaboration on e-commerce and to increase adaptability and flexibility in a non-political environment. As of 2013, AFACT had 19 members from Afghanistan, Australia, Cambodia, China, India, Indonesia, Iran, Japan, Korea, Malaysia, Mongolia,

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Pakistan, Philippines, Singapore, Sri Lanka, Saudi Arabia, Taiwan, Province of China, Thailand, Vietnam and one associate member (Pan Asian e-Commerce Alliance (PAA), together with official cooperation with UN/ESCAP.

The structure of AFACT is as follows.

(a) A Plenary is held annually where all members may attend and decide the key issues;

(b) A Steering committee (StC) manages and coordinates AFACT activities;

(c) There are three Executive committees (EC): Business Domain Committee (BDC), Technology & Methodology Committee (TMC) and Community Support Committee (CSC);

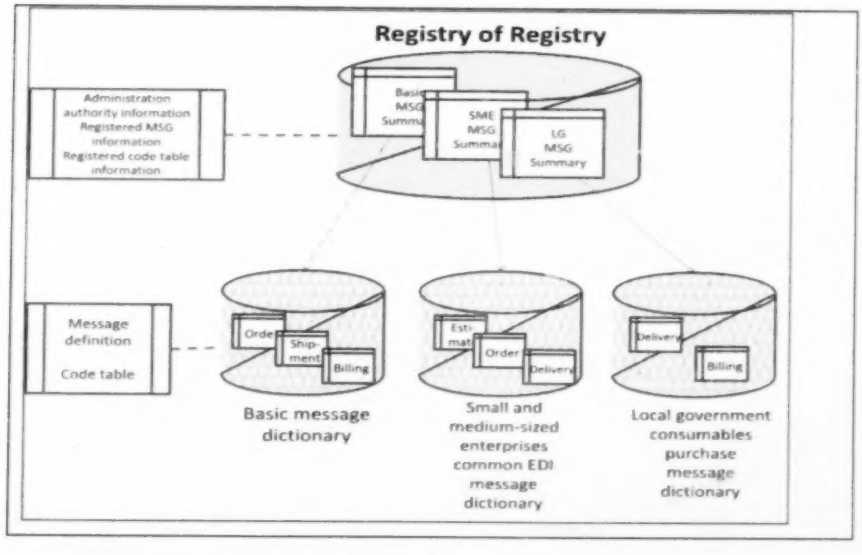
(d) There are three Working Groups (WG) under BDC: ECOO (Electronic Certificate of Origin), TT&L (Travel Tourism and Leisure) and SHARP (Secured, authenticated, accountable interchange platform).

4. The thirty-first AFACT annual meetings were held from 27-29 November 2013 in Ho Chi Minh City, Vietnam. The meetings were composed of Executive Committees and Working Groups meetings on 27 November, a Steering Committee meeting on 28 November, and a Plenary meeting on 29 November. The 2013 eASIA Awards ceremony and EDICOM 2013 were also held on 29 November.

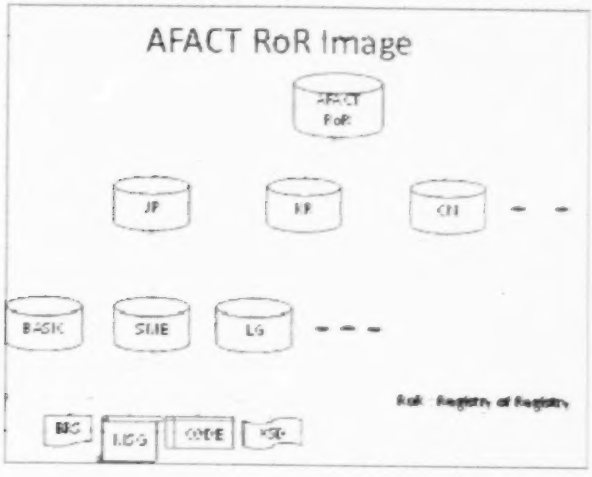
5. Participants: 8 Countries (India, Iran, Japan, Republic of Korea, Sri Lanka, Taiwan, Province of China, Thailand and Viet Nam (hosting member)) and UN/ESCAP.

6. The Rapporteur made a presentation on recent activities of projects in UN/CEFACT.

7. With regard to promoting UN/CEFACT CCL utilization for cross industries in Asian Countries, the TMC discussed the basis of a White Paper for UN/CEFACT CCL Utilization in Japan (written in English) which will be published on the AFACT website.



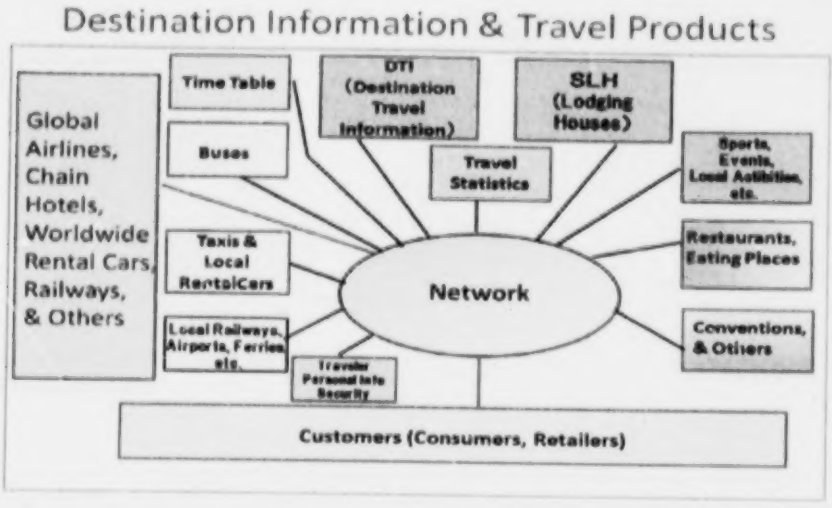
Also the idea of an 'AFACT Registry of Registry' (ROR) for cross industry interoperability was discussed. This ROR will be necessary for practical management when message dictionaries of various industries increase and especially in cases where plural countries may become operational in the near future. The pilot case of ROR in Japan will be introduced in the next AFACT mid-term meeting.



8. 'Trusted Communication Platform for Electronic Documents ', a new project of ISO TC/154. The SHARP W/G opened a group for sharing and receiving comments from AFACT members about "Trusted Communication Platform for Electronic Documents". This project was accepted as a WG1 PWI in ISO TC/154. Korea will provide some open sources regarding its platform to AFACT members and will operate its open source communities on the website. Korea and Iran will try to develop a case implementation of its platform.

9. 'Management of e-identity for cross borders', a new proposal to UN/CEFACT: representative of the Republic of Korea explained the approach of the 'e-identity' project presented at the UN/CEFACT forum in Sardinia. It was confirmed in AFACT BDC that this will be a working item in this committee.

10. 'Destination Travel Information (DTI)', a new project of UN/CEFACT: the AFACT TT&L working group will proceed with the Small Scaled Lodging House (SLH) international pilot project based on UN/CEFACT specification as well as development of UN/CEFACT specification of DTI. The scope is that both products will be linked as shown in the following chart.



11. Cloud Computing Working Group: a new working group, Cloud Computing, was proposed by Taiwan, Province of China and discussed in Technology & Methodology Committee (TMC). The standards are mainly developed by DMTF (Distributed Management Task Force) and OASIS Topology and Orchestration Specification for Cloud Application(TOSCA) with a focus on migrating applications and services to a standard-compliant cloud environment and between different cloud infrastructures to avoid vendor lock-in and enable cloud application and service providers with "AppStore" in the future. The deliverables will include:

- Definition of Open Virtualization Format (OVF) for selected applications;
- Pilot projects packaged for cloud migration interoperability using OVF;
- Guidelines for utilizing OVF.

12. Single Window and e-Customs practices in AFACT: the Communication Support Committee (CSC) is continually collecting the status of Single Window and e-Customs implementation in AFACT. Currently, the relevant information from Japan, Iran, Republic of Korea, Republic of Singapore and Taiwan, Province of China, are posted on the AFACT website.

13. UNESCAP activities report:

- Mr. Sangwon Lim, from UNESCAP, made a presentation about the following activities and updates of his organization.

Major ESCAP events in 2013

- Regional Workshop in Global supply chain integration regarding issues in cross-border Paperless trade. (Bangkok, Thailand, 10-11 July 2013);
- Asia Pacific Trade Facilitation Forum 2013 (Beijing, China, 10-11 Sept.2013);
- ESCAP-WCO UNNExT Masterclass 2013.

Two week intensive training on paperless trade and Single Window (Cheon-an, Republic of Korea, 7-18 October 2013 (with the Korean Customs)

- ESCAP Trade and Investment Week (Bangkok, Thailand 18-22 November 2013), Back-to-back with 2nd Global Trade Facilitation Conference (Bangkok, Thailand 18-19 November 2013)[1].

ESCAP Work Programmes and Projects

- Implementation of ESCAP Resolution 68/3:
  - Regional study completed, with subsequent expert review, Mar-May 2013).
  - Member consultation in the months of July and September (Three Sub-regional meetings and one Regional meeting)[2].
- Cross-border Business Process Analysis (BPA) Study in South Asia:
  - Completed study along 3 corridors across Bangladesh, Bhutan, India and Nepal.
  - Phase 2 of the study (BPA+) Inception Workshop (26-27 November 2013)[3].
- Capacity building support to developing member countries:
  - Advisory service on BPA and Single Window implementation.
  - Primary focus on LDCs and LLDCs; Cambodia, Mongolia, Kyrgyz Republic, Nepal etc.
- UNNExT
  - Advisory groups on implementation of ESCAP Resolution 68/3 ad Agricultural trade Facilitation.

ESCAP Work Programmes in 2014

- Asia Pacific Trade Facilitation Forum 2014 (Thailand, September-October 2014).
- UNNExT Masterclass 2014.
- BPA+: On-going implementation.
- UNNExT: Advisory groups on SMEs and Transit Facilitation.
- Implementation of ESCAP Resolution 68/3: On-going.

14. 2013 eASIA Awards: the eASIA Awards are administrated by AFACT. The event is held every two years and is aimed at promoting the achievement of member countries in the development of trade facilitation, electronic business and activities. The purpose is to recognize the significance of efforts made to encourage exchange of best practices. The following are the winners in each of the four categories.

- Trade Facilitation:

  Electronic Bank Realization Certificate by Directorate General Foreign Trade, Govt. of India.

- e-Business in Public Sector:

  Building and deploying electronic customs clearance system by FPT Information System (Viet Nam).

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[1] http://www.unescap.org/tid/projects/gtfc13.asp .
[2] http://www.unescap.org/tid/reso683.asp .
[3] http://www.unescap.org/tid/projects/ttf-sasec.asp .

- e-Business in Private sector:

  The best practice of Secure Mobile Payment for Electronic Business by CyberSoft Digital Services Corp. (Taiwan, Province of China).

- Bridging digital divide:

The APEC Digital Opportunity Centre Project by Institute for Information Industry (Taiwan, Province of China).

III. Regional Workshop on SASEC Program (October 2013)

15. The South Asia Sub-regional Economic Cooperation (SASEC) Program, whose members are Bangladesh, Bhutan, India and Nepal, held a Regional Workshop on National Trade Facilitation Committees on 9-10 October 2013 in Kathmandu, Nepal. The workshop was jointly supported by the Asian Development Bank and UNCTAD. This forum focused on sharing international best practices in implementing national trade facilitation committees and contributed to both the on-going work of the SASEC Trade Facilitation Working Group, and specific requirements of the SASEC Trade Facilitation Program (currently under implementation in Bangladesh, Bhutan, and Nepal).

16. The Rapporteur was invited to make a presentation on the case of JASTPRO in Japan as National Trade Facilitation Committee (NTFC) defined in the UNECE Recommendation N°4. Additionally, Mr. Jari Salo, Mr. Javaid Mansoor and Mr. Graziano Severini made presentations on the cases of NTFC in Finland, Pakistan and Italy, respectively.

17. The delegations of Bangladesh, Bhutan, India and Nepal, each presented on their current situation and at the final session each presented on their trade facilitation action plan.

18. UNCTAD officers made presentations on current approach of UNECE and UNCTAD in disseminating the effectiveness of NTFC in countries to promote trade facilitation. The article about NTFC in the draft WTO Trade Facilitation Agreement was also referenced in this presentation (this article moved from a 'Recommendation' to a 'Binding Obligation' after the WTO Ministerial Conference in Bali). The WTO Bali Ministerial Conference concluded on 7 December with an agreement on trade facilitation.

IV. Asia-Pacific Trade Facilitation Forum 2013 (September 2013)

19. The Rapporteur participated in the APTFF held by UNESCAP and Asian Development Bank on 10-11 September 2013 in Beijing, China.

20. The annual Forum was the 5th Forum held.

21. The title of the Forum was "Towards more efficient and inclusive supply chains: public and private sector perspectives". Experiences of developed countries were shared and there was a particular focus on developing countries, landlocked developing countries and the lease developed countries.

22. Participants: more than 170 members from 37 UN/ESCAP member countries.

23. Through panel sessions and exhibitions participants shared good experiences and best practices. In addition to sessions on trade logistics, paperless trade and single window,

a session of 'Trade Finance' was newly added in this Forum to take into consideration the increasing importance of this area for growing global supply chain.

V. Conclusion

24. The region continues its strong commitment to the implementation of paperless trading and electronic business. UN/CEFACT needs to continue its engagement with regional bodies in the Asia and the Pacific to coordinate regional inputs with its development and delivery of global instruments.

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Revision of Recommendation 14: Authentication of Trade Documents[1]

Submitted by the International Trade Procedures Domain (ITPD), Trade and Transport Programme Development Area for approval

Summary

At its ninth session, in March 1979, UN/CEFACT's predecessor, the Working Party on Facilitation of International Trade Procedures (WP.4), adopted Recommendation 14 relating to "Authentication of Trade Documents By Means Other Than a Signature" (document TRADE/WP.4/INF.63, TD/B/FAL/INF.63).

The aim of this Recommendation is to encourage the use of electronic data transfer in international trade by recommending that Governments review national and international requirements for signatures on trade documents in order to eliminate the need for paper-based documents by meeting the requirement for manual-ink signatures through authentication methods that can be electronically transmitted.

Similarly, this Recommendation encourages the trading community and trade services providers to examine business processes to identify where signatures (of any kind) may be eliminated and for those processes where this is not possible, to pursue the electronic transfer of trade data and the adoption of authentication methods other than the manual-ink signature.

The present document contains the second edition of Recommendation 14, which the UN/CEFACT International Trade Procedures Domain (ITPD) has prepared. The current revision, approved by the UN/CEFACT Bureau, supersedes and replaces the first edition (TRADE/WP.4/INF.63).

It is submitted for approval by the 20th UN/CEFACT Plenary.

[1] Given the change in technology since the original (1979) version of this recommendation and the change in use of vocabulary, ITPD proposes that the title be modified from the original "Authentication of Trade Documents By Means Other Than a Signature" to the current proposition "Authentication of Trade Documents".

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I. Introduction

1. The exchange of accurate, complete and timely information is fundamental to the efficient and effective conduct of domestic and international trade. Traditionally the exchange has been conducted by the use of paper-based documents. Increasingly, electronic equivalents to paper including on-line services have improved the speed and efficiency of data exchange for trading partners, trade services providers, government and other regulatory authorities and agencies.

2. A constant and continuing objective of the United Nations Centre for Trade Facilitation and Electronic Business (UN/CEFACT) is the reduction of documents used in the supply chain between business partners both domestic and international. Where removal is not possible because of legal obligation, regulatory requirement or business need, UN/CEFACT has pursued the objective that the document should not require a signature to convey the intent of the party originating it or for the recipient to act on the information contained in it.

3. UN/CEFACT recognizes the aim of removing signature from all trade documents that remain in the supply chain is probably unattainable. Some trade documents will of legal necessity continue to require a signature. The requirements for a signature are tied to the use of paper documents. The ever increasing use of electronic or other automatic means of data transfer makes it desirable to find alternative authentication methods, some of which may eliminate the need for a signature entirely and some which may provide the electronic equivalent of a manual-ink signature. Since the first version of this Recommendation in 1979, a number of alternative methods of authentication have appeared and will probably continue to appear in the years ahead.

Part one: Recommendation 14 on Authentication of Trade Documents

I. Scope

4. This Recommendation seeks to encourage the use of electronic data transfer in international trade by recommending that Governments review national and international requirements for signatures on trade documents in order to eliminate the need for paper-based documents by meeting the requirement for manual-ink signatures through authentication methods that can be electronically transmitted.[2]

5. Similarly, this Recommendation encourages the trading community and trade services providers to examine business processes to identify where signatures (of any kind) may be eliminated and for those processes where this is not possible, to pursue the electronic transfer of trade data and the adoption of authentication methods other than the manual-ink signature.

[2] For the transition from paper documents to electronic equivalents in the various functions of an international trade transaction, see Lauri Railas, "The Rise of the Lex Electronica and the International Sale of Goods, Facilitating Electronic Transactions Involving Documentary Credit Operations", Forum Iuris, University of Helsinki, 2004, especially chapter VIII.

II. Use of international standards

6. The use of international standards can play a key role in larger acceptance of chosen solutions and eventually, interoperability. In so far as possible, governments and private actors who intend to electronically exchange data using an authentication method should try to make use of existing international standards.

7. This document is part of a package of recommendations on trade standardization and facilitation (see Annex A.3). There are many aspects to electronic data exchange, many of which are the subject of several United Nations Economic Commission for Europe (UNECE) current and future recommendations.

8. The legal codification work in electronic commerce and electronic signature, undertaken by the United Nations Commission on International Trade Law (UNCITRAL) should be taken into account and used whenever possible as a foundation for developing electronic authentication legal infrastructure for both national and international transactions.

III. Recommendation

9. UN/CEFACT recommends that governments and those engaged in the international trade and movement of goods:

- Actively consider the removal of the requirement for a signature (manual-ink or its electronic equivalent) from trade documents except where essential for the function of the document or the activity and refrain from requiring a signature in new rulings or practices.

10. Further, the UN/CEFACT, recognizing the importance of authentication methods in electronic exchange of trade-related documents, recommends that governments and those engaged in the international trade and movement of goods:

- Consider the introduction of electronic methods to authenticate trade documents;
- Create a legal or contractual framework that permits and gives equal status to such authentication methods.

11. In order to achieve this objective, UN/CEFACT recommends:

- A regular review of the documentation used for domestic and cross border trade by a joint public and private sector working party (or sector-specific working parties). The goal of the working party would be to eliminate the requirements for a manual-ink signature and where this is not possible, replace the manual-ink signature with other authentication methods.

Part two:
Guidelines for implementing Recommendation 14

I. Introduction

12. These guidelines, which are complementary to UN/CEFACT Recommendation 14 on authentication of trade documents, are designed to assist governments and Trade in identifying the function and use of signature. They provide an overview of the main issues that should to be addressed, some of the tools that are available and the steps to be taken when moving towards electronic methods of authentication.

13. This Recommendation will be accompanied by two Annexes aimed at assisting Governments and Trade to envision ways in which electronic methods of authentication have been put in place or are currently implemented.

II. Signature

A. Definition of signature

14. The word "signature" in today's vocabulary encompasses both manual-ink signature and its electronic equivalent.[3]

15. In its broadest sense, a signature (manual-ink or its electronic equivalent) creates a link between a person (physical or legal) and the content (document, transaction, procedure, or other). This link can be considered as having three inherent functions: an identification function, an evidentiary function and an attribution function.[4]

16. In international business relations, one of the basic foundations is trust between the parties; the requirements of a signature will, in many cases, most likely reflect that trust.

B. Functions of a signature

- The identification function of a signature confirms or allows the establishment of the identity of that signatory; identification can include: the claimed/asserted identity of the person, the veracity of the identity claims, the credentials of any verifying organism, the proof of origin, the time and date, and any other aspect which identifies the related persons or the content.
- The evidentiary function of a signature will involve legal implications and can include: integrity, consent, acknowledgement, and detection of any changes in the document after it was signed. It can reflect any level of commitment which the act of signing might have indicated.
- The attribution function of a signature is the link between the signatory and the document which is signed. This can include the authority granted within the role (i.e. within a company, within a government authority, within the market…) of the signatory.

17. These three functions can be considered to be on variable levels. There can be more or less of each of these functions inherent in any signature.

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[3] The original 1979 version of this Recommendation makes no distinction in the title because at that time, a signature was considered to always be manual-ink. As such, this term requires further precision in the current Recommendation title and throughout this document.

[4] These ideas of functions are developed in paragraph 7, page 5, UNCITRAL "Promoting Confidence in Electronic Commerce: Legal Issues on International Use of Electronic Authentication and Signature Methods," United Nations, Vienna 2009. Available as of March 2013 at http://www.uncitral.org/pdf/english/texts/electcom/08-55698_Ebook.pdf. See also "Review of Definitions of "Writing," "Signature" and "Document" employed in multinational conventions and agreements relating to international trade, submitted by the Legal Working Group (LWG), Revision of Document Trade/WP.4/R.1096 dated 22 July 1994) Geneva, October 2001, ECE/TRADE/240."

C. Methods of authentication

18. A signature or its functional equivalent is a common method of authenticating trade documents. These Guidelines use the term "to sign" and "to authenticate" in a similar manner.

19. The usage or the requirement of a manual signature presents major problems for modern high-technology data transfer in those instances where the data is transmitted to the country of (final) destination and where the manual signature must be available at the clearance of the goods. National legislation and international conventions should be changed wherever they impose a manual signature as a guarantee for the authenticity of information transmitted in this way.

20. Care should be taken when considering the terms presented here in chapter II (signature, function of signature and authentication). There are often different understandings of these terms depending on the environment (legal or technical). There can be further differences based on the region of the world these terms are being used. [5]

III. Requirement for signatures on Trade documentation

21. In general, there are various uses of a signature on trade documentation. When considering a transaction from a manual-ink signature process to its electronic equivalent, it is necessary to consider the context of the transaction itself.

A. Considering the legal context of the transaction

22. Generally, for business to business transactions, the legal requirements can be within the framework of commercial law. The requirements or trade practices may be further developed or defined by trade organizations for their members. Finally, many requirements within transactions between two independent trading partners will be explicitly defined in bilateral or multilateral agreements.

23. For transactions with government authorities or among government authorities, the legal requirements are defined almost exclusively within the framework of public law.

24. There may be several layers of public and private law to be considered: at a federal level, at a state level, at a ministerial level, at an agency level, at a regional level, at an international level, etc. It may also be necessary to consider several types of public regulations: commercial regulations, transport regulations, health regulations, customs regulations, etc.

25. Furthermore, a same document may be used by several agencies of a same government, or even of different governments. This may happen for instance, in the framework of single window facilities or coordinated border management. In these cases,

[5] In general, signature and authentication in an Information Technology (IT) environment often encompass some inherent functions which can vary from integrity, genuineness, proof, security, etc. Again, all of these terms can have differing interpretation based on environment and geography. This Recommendation has been prepared to align itself with the works of UNCITRAL while remaining consistent with the use of these terms in other UNECE trade recommendations. When reading or drafting any text on the subject, clear identification of which approach is being used, is recommended. For legislators who will probably use a legal definition, reference to UNCITRAL documents on the subject is recommended in order to clearly identify the legal use of these terms.

the requirements of authentication will need to be aligned so as not to put into doubt the validity of the data which is being communicated.

26. Legislation must not create stringent requirements which would put in doubt the validity and enforceability of otherwise legitimate transactions.

B. Trade documents

27. Several interests can be affected by a chosen method of authentication; these include commercial, transport, financial and official. Problems may arise in documents that cross borders as they must be used in two different countries or regions. It should also be noted that the information in some documents may be of interest to more parties than the original and the final recipient of the documents.

28. Commercial documents can include the commercial invoice, certificate regarding quality and quantity, shipping advice and, or notification and credit note. The main principle of international trade law is that there is no formal requirement for a signature. Subject to an exceptional requirement of signature in national law, documents required for the practical performance of a contract need not therefore be signed.

29. Transport documents often involve a number of parties apart from the carrier themselves: exporters, importers, financers, insurers and authorities. The documents can include Export Cargo Shipping Instruction, Bill of Lading, Sea and, or Airway Bill, Consignment Note and Certificate of Shipment. Many of these documents are covered by international conventions that impose internationally binding obligations and conditions and are often enforceable by national laws and regulations. Some of these conventions still mandate a signed document to perform a particular function in the transport, transit or logistics chain. However, many more conventions have adopted a more modern, simpler approach by removing the requirement for a manual signature and replacing it with an electronic equivalent or another method of authentication[6]. Consequently the domestic and international transport chains are increasingly demonstrating the tendency that the requirement for a signature is not necessary.

30. Financial documents can include insurance policy or certificate, bank transfer, specific bank documentary provisions of the credit or collection, and bills of exchange. The same considerations would largely apply as with transport documents. Many of these documents have already been replaced by automated processes that relate to relationships between the financial institutions. Some financial documents, most notably bills of exchange are negotiable instruments, where form and signature requirements are well established. However this does not preclude actions to remove these requirements and replace them with more modern, simpler methods or authentication.

31. Official documents can include customs export declarations, import entries, import certificates, agricultural certificates, CITES (Convention for the International Trade in Endangered Species) certificates, and other documents required to establish admissibility and accountability. The acceptance and responsibility to meet official and regulatory demands often occurs at import in the country of final destination. However, meeting these requirements often has a direct bearing on action in the country of export before or at the time of dispatch, or subsequently.

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[6] UNCITRAL has on-going work on this subject. See, among other references, the 47th Session Working Group at http://www.uncitral.org/uncitral/en/commission/working_groups/4Electronic_Commerce.html (as of 1 July 2013) and the draft model terms is A/CN.9/WG.IV/WP.122.

C. Determining the needs of authentication in the context of a transaction

32. For transactions with government authorities, it is recommended that a joint public and private sector working party (or sector-specific working parties) be established in order to perform a regular review of the documentation used for domestic and cross border trade. The goal of the working party would be to eliminate the manual-ink signature whenever possible and either eliminate its necessity completely, if this is safe and reasonable in the context of the transaction, or replace it with other authentication methods. A list of considerations is proposed in Annex B.1.

33. For business to business transactions, the two parties can likewise study the needs of authentication in the context of individual transactions or make reference to a transversal agreement. The list of considerations proposed in Annex B.1 should also provide guidance in this context.

IV. Use of electronic authentication methods

34. The choice of other authentication methods will depend on the business process and a risk assessment of the needs of that process. A list of considerations when choosing an electronic authentication method is proposed in Annex B.1.

A. Technology neutrality

35. In so far as possible, legislation should remain technology neutral; it should not discriminate between forms of technology. Technological guidance, when provided, should be based on minimal requirements perhaps with examples, but with the possibility of responding to these requirements with other solutions which would be functionally equivalent.

B. Levels of reliability

36. As described above, depending on the relationship between the parties and the context of the legal environment, some processes may require more or less security. Not every transaction needs to be the highest level of security. Likewise, technological methods vary and may provide more or less security as required.

37. The chosen method of authentication should be "as reliable as was appropriate for the purpose for which the data message was generated or communicated, in the light of all the circumstances, including any relevant agreement."[7]

38. Efforts should be made to avoid creating electronic solutions which are more cumbersome or costly than the manual process. Technology can provide implementations with very high levels of reliability. Implementation choice should be in line with the level of reliability required by the process and existing legal constraints.

[7] Article 7.1, UNCITRAL "Model Law on Electronic Commerce with Guide to Enactment 1996 with additional article 5 bis as adopted in 1998" United Nations, New York, 1999, p.5-6. Available as of March 2013 at http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/1996Model.html.

C. Typologies of electronic authentication methods

39. A number of alternative methods exist that can replace a manual-ink signature. Technology is constantly evolving. Illicit or fraudulent activity is also constantly evolving, finding ways to undermine the level of reliability that might be placed in some aspects of a given method. For this reason, technical standards and technical implementations are further discussed in Annex B.2 of this Recommendation in order to facilitate its updating to correspond to current best practices and standards.

40. Depending on risks, security needs, and other considerations, an authentication method used alone ("single factor authentication") may suffice. In high-risk situations however, an appropriate combination of authentication methods and other techniques may be needed ("multi-factor authentication"). For example, a registration and verification process may be based on an ID/Password for identification accompanied by a Virtual Private Network (VPN) or other electronic method.

D. Electronic signature

41. Almost without exception, all of these methods can generally be referred to as an electronic signature. An electronic signature can be defined as "data in electronic form in, affixed to or logically associated with, a data message, which may be used to identify the signatory in relation to the data message and to indicate the signatory's intention in respect of the information contained in the data message."[8]

42. It should be noted that an electronic signature in this broad sense does not inherently call for a specific form of technology. An electronic signature will serve the same functions as a manual-ink signature, again on a sliding scale with more or less of each of these functions (that is, identification, evidentiary and attribution).

43. An electronic signature should not be discriminated because of its origin. It should also not be discriminated merely because it is an electronic authentication method. However, it may be discriminated because of its intrinsic qualities. The governments and regulatory authorities of various countries should work towards implementing arrangements like Memorandum of Understanding (MoUs), agreements, etc. for providing legal recognition to electronic signatures of foreign origin and for ensuring inter-operability of electronic signatures.

44. A distinction should be made between "electronic signature" as it is used in this guideline and relevant UNCITRAL texts on electronic commerce and "digital signature" which is addressed in the Annex B of this Recommendation. For the sake of clarity, it is underlined that these two terms are not interchangeable. The generic term, which makes no reference to any technological choice, and used in UNCITRAL texts on electronic commerce, is "electronic signature". "Digital signature," as discussed in UNCITRAL documents, implies that a technological choice has been made (for solutions with asymmetrical encryption, Public Key Infrastructure (PKI) signature technology being the main example).[9] Regulators and those drafting contracts or technical documents, should

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[8] Cf Article 2a of the UNCITRAL "Model Law on Electronic Signature with Guide to Enactment 2001,"United Nations, New York 2002, page 1. Available as of March 2013 at: http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/2001Model_signatures.html. Note that the original definition in this 2002 document cites the "signatories' approval," Further UNCITRAL work has evolved towards the "signatories' intention."

[9] Cf for example paragraph 21, page 15, UNCITRAL "Promoting Confidence in Electronic Commerce: Legal Issues on International Use of Electronic Authentication and Signature Methods, (cont'd of footnote 9, page 9)" United Nations, Vienna 2009. Available as of March 2013 at http://www.uncitral.org/pdf/english/texts/electcom/08-55698_Ebook.pdf.

bear this distinction in mind and use the term "electronic signature" unless they intend to imply such a technological choice has been made.

V. Aspects for consideration of electronic authentication methods

45. These are some aspects that should be considered depending on the chosen methods of authentication.

A. Use of third party services

46. The parties may prefer or need to call upon a third party to perform any aspect of transmission, archival, retrieval, verification, etc., involved in the authentication method. In some cases, third party services are mandated or validated by a government authority (issuing encryption keys, for example). In some cases, third party services offers options to trading partners for full plug-and-play solutions, data compilation and transmission services, enhancement of security, archiving/retrieval services, etc.

47. In a very general sense, authorization to use a third party service should be granted by either trading partner. In this case, the third party service would be considered an 'intended party'/'authorized party' in the transaction process. Any limitations to this authorization or the possibility to use a third party service should be clearly outlined in the appropriate legal text, the bilateral agreement between trading partners or agreements with the third party services.

48. Where third party services are mandated or validated by a government authority, the requirements to become mandated should be transparent and the process should be open to all.

B. Security of data

49. Access to the data should be limited to the intended parties (authorized parties). This can in part be determined by the legal responsibilities of the parties involved.

50. The requirements of the security of the data will correspond with the level of reliability required by the transaction which should have been determined by a risk assessment considering the process, the operational constraints, the legal constraints and the relationship of trust between the parties. If a trusted third party is acting within the process, they should ensure this same level of reliability. Depending on the determined level of reliability, parties' interests in the event of litigation should be protected.

51. Depending on the level of reliability, security of the data may encompass ensuring protection and ensuring that data is not deleted or destroyed.

C. Transmission of data

52. The aspects of the actual transmission of data will depend on the electronic method chosen. These are presented in the Annex B of this Recommendation.

53. For private business to business exchanges, the two parties should explicitly agree on the method of communication and the method of authentication. They should consider the level of reliability required when establishing this agreement. This could, for example, be part of an Interchange Agreement between the two parties as per the model of

UN/CEFACT Recommendation 26. This could also be covered in a transversal agreement established by an authority.

54. Depending on the level of reliability, an audit trail may be necessary. In some cases it may be useful or legally necessary to obtain confirmation of transmission / confirmation of receipt, ensuring the order of messages, time stamp, the various headers, etc. This may be required under certain trading partner agreements or in a particular legal context.[10]

D. Archiving / retrieval

55. In most cases, trade documents will need to be archived either for later use for other processes, for a trace of the operations, etc., or in order to respond to legal obligations or regulatory requirements (for example the legal requirements to archive electronic invoices or customs declarations). When considering the archiving of trade documents, the party should consider the archiving period, archiving place, and access control. Authentication method for archiving documents could be very different depending on long-term archiving or short-term archiving. Documents archived for long periods may require special attention, as existing authentication methods commonly weaken or even become obsolete over time due to new technologies. Governments or bilateral agreements may want to foresee migration from one technology to another during archiving.

56. Depending on the needs of the transaction, archiving methods may be expected to correspond to at least an equivalent level of reliability as the authentication/signature method used. The method of archiving should be auditable; in other words, it must be possible to check its reliability to see whether it works or not, to check the correctness of retrieved data and its readability (format used), and to verify that it encompasses the functional aspects of an authentication which is being accepted between the parties and authorities.

57. The trading partners may wish to call upon a third party service to assist in archival and retrieval of the data; this may be dependent on many factors including technological capabilities and costs. In this case, the third party services should take into consideration the above points. Third party solutions may also have the possibility to issue a certificate with legal effect proving that an authorized party retrieved the data and when it was retrieved, if the level of reliability calls for such provisions.[11]

VI. Recommendation Review Process

58. The present Recommendation is divided into the Recommendation text, guidelines and Annexes (which include Repositories). It is suggested that the Annexes and Repositories are updated every three to five years. This will entail contacting each initial contributor to verify that the information is still pertinent / up-to-date (absence of a response should result in the elimination of the submission from the Annex). Following the response from the contributor, the information in the Annex should be confirmed, revised or eliminated as the case may be. This will also be an opportunity to request new submissions for the Annexes and integrating any other contributions.

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[10] In this regard, reference may be made to article 15 of the UNCITRAL Model Law on Electronic Commerce and article 10 of the Electronic Communication Convention which provides rules on the time and place of dispatch and receipt of data messages.

[11] In this context, reference may be made to article 10 of the UNCITRAL Model Law on Electronic Commerce which provides a rule on retention of data messages.

59. Once all of the Annexes and Repositories have been updated, it is suggested that the content of the Recommendation and its Guidelines be verified against the revised Annexes. If there are no (or very minor) modifications, it may be best not to update the Recommendation in the interest of trying to keep a stable version. If there are elements from the Annexes and Reposito.ies which contradict or render the Recommendation text obsolete / erroneous the Recommendation should be modified.

60. Similarly, if Governments or Trade bring substantive concerns to light as to the pertinence of the text of the Recommendation, this should be considered for purposes of text revision even outside of the updating periods.

VII. Options other than a manual-ink signature

61. This chapter aims to bring further precision to the three main recommendations of this document.

A. Removal of manual-ink signatures and their electronic equivalent when possible

62. It is recommended that Governments and all organizations concerned with the facilitation of international trade procedures examine current trade documents to identify those where manual-ink signatures and their electronic equivalent could safely be eliminated and to mount an extensive program of education and training in order to introduce the necessary changes in commercial practices.

63. This removal of the requirements for a signature should be studied on a case-by-case basis for each given commercial document. Where signature is not essential for the function of the document or the transaction, then it is recommended that these requirements be removed.

64. Furthermore, when creating new trading environments or documents, it is recommended to naturally refrain from introducing requirements for signatures in new regulations, rulings, contracts or practices.

B. Enabling electronic methods of replacing a manual-ink signature

65. It is recommended to governments and international organizations responsible for relevant intergovernmental agreements to study national and international texts which embody requirements for signature on documents needed in international trade and to give consideration to amending such provisions, where necessary, so that the information which the documents contain may be prepared and transmitted by electronic means.

66. Amending the relevant provisions in every legal text where a signature is mentioned is not feasible given the very high number of occurrences. In order to resolve this at the national level, it is recommended to adopt legislation establishing functional equivalence between electronic and paper-based signatures such as that based on the UNCITRAL Model Law on electronic commerce and on the UNCITRAL Model Law on electronic signatures. This blanket provision would reinterpret any reference to signature or authentication as meaning the possibility to allow for their functional electronic equivalent. At the international level, the same result may be achieved with the adoption of the United Nations Convention on the Use of Electronic Communications in International Contracts,

2005 (article 9(3)).[12] Since the Convention applies to international transactions only, it is also recommended to create a concurrent legal text for domestic transactions with such a blanket provision which would reinterpret any reference to signature or authentication as encompassing their functional electronic equivalent.

67. It is suggested that the paper-based process be identified and that this process be detailed step-by-step. Risk-assessment should be a guiding principle, considering the context of the transaction/service, the legal constraints, the operational constraints, etc. Parties should be permitted and encouraged to fulfill functional requirements of a manual-ink signature by using other methods.

C. Creation of legal framework

68. Examples of legally enabling environments are provided in Annex A. The operational capability of replacing a manual-ink signature by an electronic method must be accompanied by appropriate legislation which gives equal status to those authentication methods. This legal framework should foresee the acceptability in court of alternative transmission methods and archiving processes. Two main aspects may need to be addressed either jointly or separately: the legal framework for private-sector operations and the legal framework for operations between the private sector and government agencies.

69. Concerning operations between private businesses and between business and consumers, governments should undertake a study (including e-Commerce legal benchmarking and "gap analysis" studies) to determine an appropriate set of measures that may need to be taken to address legal issues related to authentication of national and cross-border exchange of trade data.

70. Concerning operations between business and government agencies, the government, at the highest level, must first provide the legislative mandate for agencies to provide the option for electronic maintenance, submission, or disclosure of information, when practicable as a substitute for paper. As part of this mandate, the government should, in consultation with other agencies and the private sector, develop practical guidance on the legal considerations related to agency use of electronic filing and record keeping so that the agency can in return, make the appropriate assessment for its mission. Consideration should be given by the agency on how to design the process to protect the agency's legal rights and how best to minimize legal risks to the agency.

71. Government should, when possible, provide guidance to the private community on this issue. Any guidance provided by the Government and/or the specific agency should also take into consideration current legal requirements pertaining to the use, storage and disclosure of information, and its use as evidence in courts or administrative bodies.

72. The legislative frameworks should be reviewed regularly in order to correspond to actual business practices. Public law should aim, whenever possible, to align with current way of doing business and with current best practices and standards.

[12] "United Nations Convention on the use of Electronic Communications in International Contracts" (Electronic Communications Convention [ECC]) United Nations, New York, 2007. In force since March 2013. Available as of March 2013 at: http://www.uncitral.org/pdf/english/texts/electcom/06-57452_Ebook.pdf

Annex A.1

Legally enabling environment

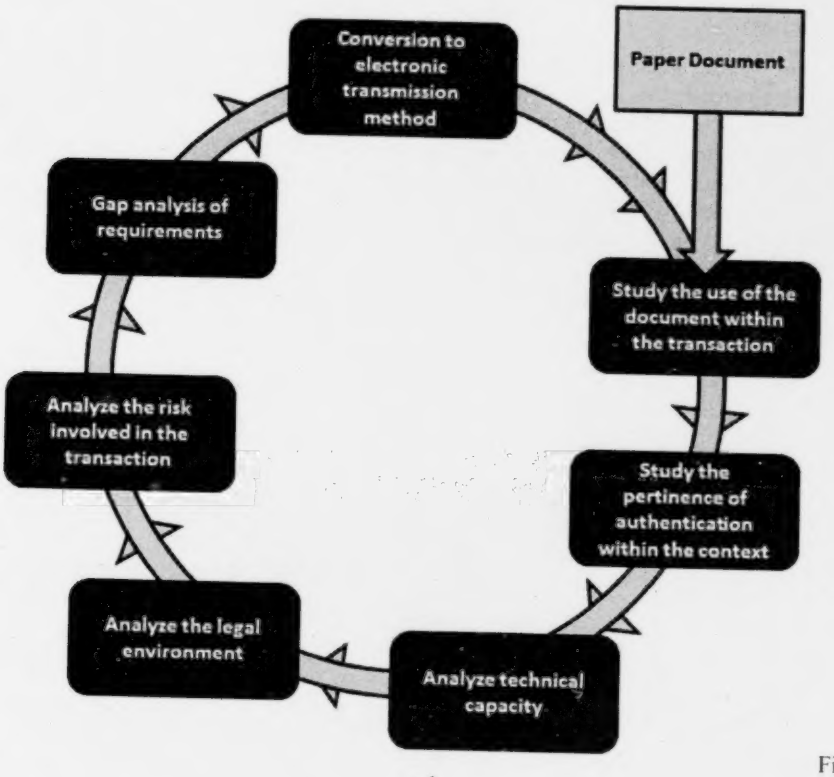
	Recommended checklist for government agencies when reviewing their legal environment
✓	Compliance with applicable laws and regulations?
✓	Compliance under confidentiality laws?
✓	Comprehensive plan to address all issues raised by moving to an electronic system?
✓	Consultation with impacted parties, including other relevant offices and agencies?
✓	Is any information used in the process required by law or regulation to be in a particular form, paper or otherwise? If part of the process is paper, how will this be satisfied?
✓	Is there a legal requirement or an agency need to maintain the information? And if so, for how long?
✓	Is the information of importance to national security, public health or safety, public welfare, the protection of the environment, or other important public purposes?
✓	Is there impact to the public if this information is not available?
✓	What is the importance of the information to the agency's mission/ programs?
✓	Is there a revenue impact to the agency?
✓	Might the information be needed for use in criminal proceedings or other legal proceedings?

Annex A.2

Virtuous circle for the review of trade documents

1. To achieve the objective of removing the requirement for a signature on trade documents, or where that is not immediately possible, to consider other methods of authentication, Recommendation 14 recommends a regular review of the documents used in domestic and cross border trade. The review would be conducted by a joint public and private sector working party to ensure that the regulatory and official requirements and the business needs of the trading community are fully considered in an open, transparent and inclusive way.

2. The suggested methodology of the working party is shown in the figure below:


Conversion to electronic transmission method
Paper Document
Gap analysis of requirements
Study the use of the document within the transaction
Analyze the risk involved in the transaction
Study the pertinence of authentication within the context
Analyze the legal environment
Analyze technical capacity

Figur e 1

3. The 'virtuous circle' diagram envisages a rolling programme of review for all documents used in domestic and international trade conducted every three to five years. For ease of conducting the programme and utilizing the expertise of the participants in the working party, the documents should be divided into specific functional groups, for example Commercial, Transport, Financial (including international payments) and Official. The suggested divisions are indicative and not exhaustive.

4. A schedule or calendar for the document groups should be agreed by an oversight or supervisory committee to ensure consistency of methodology and outputs from each group. Adopting this approach should make the review programme manageable, efficient and effective. Equally a structured programme should reduce the time and burdens on participants of the individual review groups.

5. The outcome from the rolling programme would be an action plan to remove the requirement for a signature from a significant number of trade documents. Where this is not immediately possible the action plan should offer imaginative and innovative ways of replacement by other authentication methods. In this respect the members of the review groups should embrace the concept of simpler, easier trade processes through radical yet well informed and considered solutions.

6. If, or when adopting the concept of a Virtuous Circle review program, the working party would need to consider certain pre-requisites to ensure the review is successful. First and foremost would be the technical capacity of both government and the business community to implement any proposed action plan. The working party would need to ascertain the ability of government to receive, share (among authorities and regulatory agencies), store and retrieve data, and be able to accept and process other forms of authentication.

7. For the business community, especially the small and medium size enterprise sector, the working party would need to determine traders have the ability to generate, receive and process standard electronic data messages. Business should also demonstrate the ability to maintain the electronic information for any government audit based controls using company systems and commercial records. Equally important for the assessment of capacity is to ensure business law will allow other forms of authentication other than signature to commit the trading partners to the performance of the contracts in the trade transaction.

Annex A.3

Trade documents standards package

8. UN/CEFACT provides a suite of products that offer recommendations, guidance, advice and good practices for the design, preparation and presentation (including electronic submission) of trade documents used in domestic and cross-border Trade. Recommendation 14 is one of the instruments in this suite of products and the diagram below, figure 2, gives a graphical representation of its related position in the integrated package of standards for trade documents.

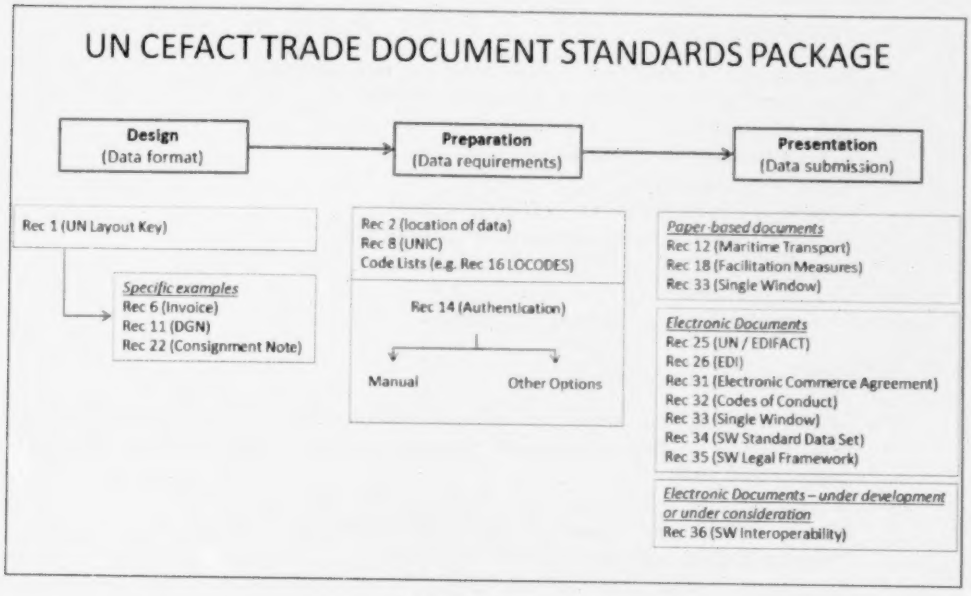


Figure 2

Annex B.1

Technical implementations

Checklist of considerations to determine the needs of authentication in the context of a given transaction

The following key points should be taken into consideration when determining the needs of authentication. This list should be applicable to transactions with government authorities as well as business to business transactions.

Context considerations

- ✓ Is a signature required at all to authenticate the trade document?
- ✓ Is an electronic transmission of the document suitable?
- ✓ Kind of transaction;
- ✓ Volume (number of individual) of transactions;
- ✓ Value of the transaction;
- ✓ Number of signatories per individual transaction;
- ✓ Frequency at which the trade transactions take place;
- ✓ Nature of the trade activity (who are the parties, the sector of activity);
- ✓ Cost and benefits;
- ✓ Compliance with trade customs and practice.

Technological considerations

- ✓ System and equipment capabilities and their possible interaction (hardware/software);
- ✓ When using an intermediary, the authentication procedures made available and set forth by them (audit procedure?);
- ✓ What are the potential threats / risks / vulnerabilities to attacks?
- ✓ What are the strengths of each alternative authentication method?
- ✓ Compatibility issues of authentication methods;
- ✓ Analysis of existing technology and usability of that technology for purposes of data retention and/or future access.

Legal considerations

- ✓ Legal context (national [local, federal…], regional, international, sectorial, jurisprudence, private law… as described above in point 3a);
- ✓ Adherence to the UNCITRAL Model Law on Electronic Commerce or Electronic Signature which enable mutual recognition of authentication methods;
- ✓ International agreements / bilateral or multilateral mutual recognitions (for example recognition of standards, financial arrangements, interoperability issues, etc.);
- ✓ Awareness of legal concerns and/or regulatory restrictions in each trading parties' environment;
- ✓ Does the transaction require legal validity or is the authentication merely for enhancing security?
- ✓ The existence of insurance coverage mechanisms against unauthorized communications.

Relationship considerations

- ✓ Determination of the level of protection needed and the potential of risk of liability for the agency / trading party
- ✓ Importance and the value of the information contained in the electronic communication

- ✓ Degree of acceptance or non-acceptance of the method of identification in the relevant industry or field both at the time the method was agreed upon and the time when the electronic communication was communicated
- ✓ Relationship between the trading parties (trust, etc.)

Annex B.2

Typologies of means of electronic authentication

The different typologies of electronic equivalents to a manual-ink signature can include (this is a non-exhaustive list, presented alphabetically in order to underline that there is no promotion intended in any of these methods):

Biometric methods

- "A biometric is a measurement used to identify an individual through his or her intrinsic physical or behavioral traits. Traits that may be used for recognition in biometrics include DNA; fingerprints; iris, retina, hand or facial geometry; facial thermogram; ear shape; voice; body odor; blood vessel patterns; handwriting; gait; and typing patterns." (UNICTRAL Promoting Confidence op.cit. §53).
- The biometric measurement may be unique, but there may be other forms of system challenges such as ensuring that a given fingerprint (for example) belongs to a specific person.

Clickable "OK" or "I accept" boxes

- Clicking an "OK" or "I accept" box.
- This will often be coupled with another identification process such as payment by a credit card (for payment) or an ID/Password. Even accepting a license with an "I accept" box will be followed by installing software (for example).

Communication network

- Identification by means of participating in a network. This can be within a larger multi-partite network (such as ODETTE in the automobile industry or SWIFT). This can also be point to point (such as a Virtual Private Network – VPN between two points of access)
- This is often accompanied by another typology such as ID/Password.

Devices (authentication with a mobile phone, for example)

- Identification of the device using a technology such as text messages (receiving a validation code or sending a message when crossing the border).
- The individual will need to be associated in some way to the device.

Digital signatures

- "Digital signature" is a name for technological applications using asymmetric cryptography, also referred to as public key encryption systems that ensure the authenticity of electronic messages and guarantee the integrity of the contents of these messages. The digital signature has many different appearances, such as fail stop digital signatures, blind signatures and undeniable digital signatures.

- One consideration will be building the infrastructure to put in place and maintain the certification process.

ID/Password

- Passwords and codes are used both for controlling access to information or services and for "signing" electronic communications. In practice, the latter use is less frequent than the former because of the risk of compromising the code if it is transmitted in non-encrypted messages. Passwords and codes are however the most widely used method of "authentication" for purposes of access control and identity verification in a broad range of transactions, including most Internet banking transactions, cash withdrawals at automated teller machines and consumer credit card transactions. (UNCITRAL Confidence op.cit. §63)

Image of a signature

- A manual signature which is scanned or sent via facsimile. It can be an entire document that has been manually signed and which is scanned / faxed. This can also be an image of a signature or a scanned signature which is then attached to the document afterwards.

PGP (Pretty Good Privacy)

- "Pretty Good Privacy" (PGP) is a software to protect information based in two keys. The first one is a public-key cryptography to encrypt the information which is collected ignoring any personal identification. The second one is the decrypt key, which is a private code only known by the owner to recover the encrypted information.

Seals (company seal)

- A digital signature which applies to a company as opposed to an individual.

Signatures on pads

- Manually signing a tactical screen device.

Signature on file

- Signing an agreement with a partner which (for example a travel agency) allows for the ability to telephone or email the partner to purchase products/services with the method of payment that they have on file.

"Something I know"

- Verification of identity by responding to a question or providing information that only the individual would know.

Structural agreement enabling electronic data exchange with no authentication

- Signing a one-time paper contract which enables electronic data exchange (IATA eAWB).

Third-party validation

- An example includes identification of the issuing party of a document which is validated by a third party.

Typed signatures

- Typing in the issuing party's name at the end of a document – an email for example (this is often checked within the context of the transaction – in this example, it can be counter-checked by the sender of the email).

United Nations ECE/TRADE/C/CEFACT/2014/6/Add.1

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Executive Committee

Centre for Trade Facilitation and Electronic Business
Twentieth session
Geneva, 10-11 April 2014
Item 5 of the provisional agenda
UN/CEFACT recommendations and standards

Recommendation 14: Authentication of Trade Documents[1/]

Repository of legally enabling environments

Submitted for information by the International Trade Procedures Domain (ITPD) - Trade and Transport Programme Development Area

Summary

At its ninth session, in March 1979, UN/CEFACT's predecessor, the Working Party on Facilitation of International Trade Procedures (WP.4), adopted Recommendation 14 relating to "Authentication of Trade Documents By Means Other Than a Signature" (document TRADE/WP.4/INF.63, TD/B/FAL/INF.63).

The aim of this Recommendation is to encourage the use of electronic data transfer in international trade by recommending that Governments review national and international requirements for signatures on trade documents in order to eliminate the need for paper-based documents by meeting the requirement for manual-ink signatures through authentication methods that can be electronically transmitted.

The present document contains a Repository of legally enabling environments and it is an addendum to the second edition of Recommendation 14 (ECE/TRADE/C/CEFACT/2014/6).

The Country specific documents in the Repository are submitted in the form in which they were received by the secretariat.

1/ Given the change in technology since the original (1979) version of this recommendation and the change in use of vocabulary, ITPD proposes that the title be modified from the original "Authentication of Trade Documents By Means Other Than a Signature" to the current proposition "Authentication of Trade Documents".

GE.14-20498

1420498

Please recycle

Submissions from the following countries:

- CH – Switzerland (State Secretariat for Economic Affairs – SECO).
- IN – India (National Information Center – NIC).
- IT – Italy (Italian Trade Commission – ICE).
- JP – Japan (Japan Association for Simplification of International Trade Procedures – JASTPRO).
- KR – Republic of Korea (National IT Industry Promotional Agency – NIPA).
- TR – Turkey (Ministry of Customs & Trade – Department of e-customs).
- US – United States of America (Customs and Border Protection – CBP).

Switzerland:
State Secretariat for Economic Affairs (SECO)

	Business / Trade context (very brief)
Please describe the business / trade context / need that was being addressed when you decided to move from physical to electronic signature. Why was this being put in place? What specific issues were being addressed?	The customs law provides the possibility to file a customs declaration electronically and to keep the customs records in an electronic form. These possibilities are part of the eGovernment Strategy Switzerland as adopted by the Federal Council on January 24, 2007 (The business community conducts the administrative procedures with the authorities electronically.) http://www.egovernment.ch/en/grundlagen/strategie.php
What types of trade documents were involved – be specific/ authenticated?	Certificates of origin, special permits/Licenses/Certificates and Authorizations (e.g. weapons, narcotics or Kimberly certificates)
Are there trade documents which do not legally require a signature?	All except the above
	Legal context
Type of legal system	International Agreements, Constitution, Customs Law/Acts, Ordinances. Civil Law.
What is the fastest that a legally enabling environment can be created?	Customs Law/Acts: 2 – 2.5 years (depending on the agenda of the parliament). Proposal made by customs (in coordination with the other involved departments), transferred to the 2 chambers of parliament, where it will be discussed separately until an agreement has been reached (several hearings are possible). Depending on the content of the proposal a subsequent public vote can be mandatory. International Agreements: 1 – 3 years, depending on the negotiations. Similar procedure as above. Ordinances: approximately 1 year, depending on the responsible body.
Environment for adding/amending laws	A change to an existing law is faster than creating a new one (due to the smaller size) but the procedure is the same
	Consultation / Development (transition to electronic environment)
What considerations needed to be addressed before passing any laws creating the legally enabling environment?	1. Do we still want/need document "xy"? Yes/no? 2. If yes: Do we want/need this document "xy" in electronic form? Yes/no? 3. If yes: Is there already a legal provision in place allowing for this document "xy" to be presented electronically? Yes/no? 4. If yes: Is it sufficient (no further steps needed) or has it to be amended (amendment needed)? 5. If no: A legal environment allowing for this document "xy" to be presented electronically has to be created.
How was the private sector involved in the process (public outreach, commentary period, etc.)?	As they have to bear the major part of the costs, they were involved from the beginning (in creating the legal base and the procedure). Regular information and consultations took place. Their input has been taken into account wherever possible and feasible. Together with them the procedures

	have been put in place (e.g. sending of the e-documents or giving access to their systems), deadlines have been fixed and the different implementation speed of the diverse companies has been taken into account.
Were there any unexpected obstacles or complications that needed to be addressed?	Some specialties (few use/limited to small geographic spaces) for specific situations were not suitable to be handled electronically (cost/benefit for customs and trade).
	Details of solution (removing manual signature legal environment)
Please briefly note current laws and their role in removing manual signature / enabling electronic exchange of trade-related documents.	http://www.ezv.admin.ch/dokumentation/04027/04998/05000/index.html?lang=de . (only available in our official languages: German, French and Italian). Art. 28 customs law (ZG) - possibilities of declaration (written, oral, electron-ic, etc.) Art. 84, 92, 96, 97, 105, 125, 184 ordinance (ZV) - procedure of declaration Art. 3, 6, 6a, 8, 20c ff., 24 customs ordinance (ZV-EZV) - detailed procedure of declaration
	Practical experience in use of this legal environment
Resulting implementation in public sector (relating to trans-boundary trade)	Changing towards electronic systems have been made in order to be able to keep up with the growing amount of trans-boundary traffic in connection with reduced staff (more efficient handling). Customs is responsible for all trans-boundary trade (representing the other concerned departments). See below.
	Contact details
	Judika Peters, Advisor Trade Facilitation and Development WTO Division, Federal Department of Economic Affairs, Education and Research EAER State Secretariat for Economic Affairs SECO Holzikofenweg 36, 3003 Bern Tel.: +41 31 322 58 66, email: judika.peters@seco.admin.ch

Typologies of electronic methods

Generally the authentication by Swiss customs always consists of a combination of the following different typologies of electronic methods:

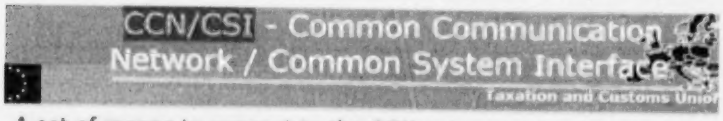
A. Communication channel (for example Virtual Private Network)

1. Import/Export

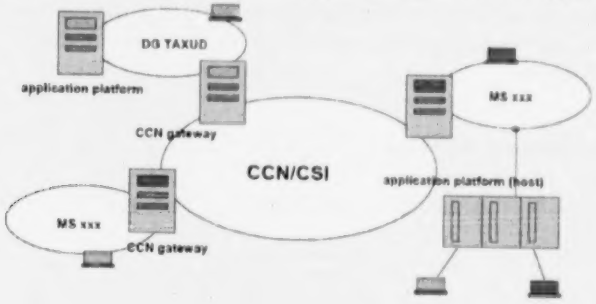
The e-dec Service enables electronic filing of export or import, as well as the acquisition of export customs declarations through a declarant. The service returns a customs response including the associated PDF documents. Our service offers various communication functionalities (Web service or Email). The two communication channels can be used alternatively. The difference is technical: the Web service is a synchronous service, the mail service is asynchronous. Both channels can only be used with a digital signature (see point C.).

2. Transit

For the transit our external clients send the transit declaration via e-mail (Simple Mail Transfer Protocol). This channel between the external clients and the Swiss customs administration can only be used with a digital signature (see point C).



A set of means to connect to the CCN gateways, i.e. harmonized protocols to connect the gateways and each application platform and a programming interface to support the data exchanges.



The channel between the customs administrations is secured (CCN/CSI).

B. Devices (authentication with a Smartphone, for example)

The employees of the Swiss customs administration use this device for the authentication in conjunction with the User Principal Names (UPN). As an alternative to the authentication via SMS, it is possible to authenticate via a Smartcard (with token; see point F) as well.

C. Digital signatures (encryption, Public Key Infrastructure (PKI))

1. Encryption

E-dec produces encrypted/signed mails using the IAIK-JCE Tookit (http://jce.iaik.tugraz.at/products/01%5Fjce/). The distribution of OpenSSL 0.9. 8i for Windows can be performed the following steps (http://www.openssl.org/). For Registration & verification (see point E)

2. PKI

The following certificates are required:

- Private certificate
- Public certificate for e-dec for the corresponding environment (test or production). Decryption and signature verification with the OpenSSL Toolkit

References:

Certificate Management with OpenSSL	http://gagravarr.org/writing/openssl-certs/general.shtml
OpenSSL Online Dokumentation	http://openssl.org/docs/
OpenSSL SMIME	http://openssl.org/docs/apps/smime.html
OpenSSL for Windows	http://www.slproweb.com/products/Win32OpenSSL.html

D. ID/Password

Employees of the Swiss customs administration use the UPN (User Principal Names) with password. Based on this, the customs officer accepts the declaration (hand- written signature is not used anymore).

E. Registration & verification process

To receive a PKI certificate, it is necessary to undertake a registration & verification process (manual procedure).

F. Tokens

The use of Smart Tokens (Smartcard, iKey) supplied by our IT provider assumes an appropriate Token Client. The Token is used for the smartcard (see point B).

India:
National Information Center (NIC)

	Business / Trade context (very brief)
Please describe the business / trade context / need that was being addressed when you decided to move from physical to electronic signature. Why was this being put in place? What specific issues were being addressed?	The Objective was to provide legal recognition to documents signed digitally in order to facilitate various B2G/G2B, C2G/G2C, B2B transactions by replacing authenticated paper documents with authenticated electronic documents.
What types of trade documents were involved – be specific/ authenticated?	Digital Signatures are being used in areas like e-Procurement , e-Banking , electronic submission of Tax Returns , Legal Contracts , etc.
Are there trade documents which do not legally require a signature?	None. Signature is mandatory. There is no such initiation for removing signature so far.
	Legal context
Type of legal system	Information Technology Act, Digital/ Electronic signature.
What is the fastest that a legally enabling environment can be created?	At present Digital Signatures are legally valid. Act also provides flexibility to add new electronic signature schemes. Such signatures Schemes should be notified in the second schedule. Ministry is authorized introduce new type of electronic signatures. The process of introduction of any new type signature may take 3-6 months.
Environment for adding/amending laws	The act empowers ministry to create new rules for authentication and introduction of new type of electronic signatures. Parliament approval is not required however it is to be placed on the table of parliament for information.
	Consultation / development (Transition to electronic environment)
What considerations needed to be addressed before passing any laws creating the legally enabling environment?	Electronic signature law exists. The current law states the electronic signature or electronic authentication technique should be considered reliable; and need to be specified in the Second Schedule. The reliability includes 1) signature linked to signatory and to no other person; 2) the signature creation data should be under the control of signatory; 3) mechanism to detect the alteration to signature and signed data. Legal recognition of electronic signature is based on the authentication by affixing the signature. The matter is authenticated by means of electronic signature affixed in such manner as may be prescribed by the Central Government.
How was the private sector involved in the process (public outreach, commentary period, etc.)?	Public can participate in the public review process.
Were there any unexpected obstacles or complications that needed to be addressed?	The reliability signature is to be examined before legal recognition.

	Details of solution (removing manual signature legal environment)
Please briefly note current laws and their role in removing manual signature / enabling electronic exchange of trade-related documents.	The Information Technology Act, 2000 has given legal recognition to Documents signed digitally using Digital Signature Certificates issued by a licensed Certifying Authority. The Act has established the Office of Controller of Certifying Authorities which issues licenses to Certifying Authorities and ensures compliance with the Information Technology Act, 2000 and other relevant Rules and Regulations.
	Practical experience in use of this legal environment
Resulting implementation in public sector (relating to trans-boundary trade)	At present digital signature is the only valid signature and for trans boundary trade, a cross certification is required.
	Contact details
	Controller of Certifying Authorities Department of Electronics and Information Technology Ministry of Communications and Information Technology Electronics Niketan , 6, CGO Complex, Lodhi Road 110003 New Delhi E-mail : info@cca.gov.in and website: cca.gov.in

Italy:
Italian Trade Commission (ICE)

	Business / Trade context (very brief)
Please describe the business / trade context / need that was being addressed when you decided to move from physical to electronic signature. Why was this being put in place? What specific issues were being addressed?	Business simplification and facilitation, faster and easier data/documents exchange
What types of trade documents were involved – be specific/ authenticated?	In general, the digitalization process has progressively involved all trade and mandatory documents in Italy
Are there trade documents which do not legally require a signature?	As a general rule, all trade documents must be signed
	Legal context
Type of legal system	Civil law
What is the fastest that a legally enabling environment can be created?	The Decree law concerning matters related to priority and national urgency (according to decisions of the Council of Ministers) is the fastest normative act in the Italian law system: it is approved by the Council and must be confirmed by a related law approved by the Parliament within 60 days. If not followed by such law, the Decree law expires. In principle, Decree laws may be used also for matters such as the creation of legally enabling environments, provided that they have the above mentioned priority and urgency requirements.
Environment for adding/amending laws	In general, There are several ways to promote a law in Italy. In particular, according to Italian relevant legal experience, for new or amended laws concerning the specific matters dealt within ECE/TRADE/C/CEFACT/2014/6, Annex A, either: • The Parliament mandates the Government to issue a Legislative Decree, setting specific guidelines and deadlines. The Government is therefore asked to comply accordingly. or • The Government or any member of the Parliament is entitled to issue a law proposal related to such matters; regular bicameral parliamentary procedures apply to these cases.
	Consultation / Development (Transition to electronic environment)
What considerations needed to be addressed before passing any laws creating the legally enabling environment?	Before creating new systems based on electronic concept, there's a need to simplify the existing rules and eliminate what is not necessary. Simplification and Red Tape reduction in fact is the first step to lighten the burden for the civil society and to improve the efficiency of the system as a whole. New laws approval can be achieved by involving public and private partnership to enable a new balance between different and sometimes contrasting interests as the Italian PA is currently accomplishing within the "Digital Agenda for Europe" program proposed by the European Commission.

How was the private sector involved in the process (public outreach, commentary period, etc.)?	The Private sector, including logistics and forwarder companies, was invited to join public Institutions in the National Standing Committee on Trade Facilitation established in February 2010, after the organization of the first 2 national conferences on Trade Facilitation in Italy in 2008 and 2009, (the latter during the 14th UN/CEFACT Forum in Rome, 20-24 April 2009). All the participants to the Standing Committee have been divided into 4 different working groups to better analyze and understand all the existing procedures of the international trade, carrying out a SWAT analysis of the system. Each group was formed by institutional experts and sectorial experts. They have analyzed all the procedures and in particular the critical aspects, bottlenecks, identifying the problems, the consequences that might occur and proposing at the same time the best solution. Also according to the UNECE recommendations and UN/CEFACT standards, all these activities resulted in a collection of best practices and in a continuous activity of analysis and mapping and digitalization of all the procedures.
Were there any unexpected obstacles or complications that needed to be addressed?	Complications are quite normal when a radical simplification process has to be conducted, especially when different Admins are involved and the approval of a reform needs the involvement of many stakeholders. Legislation related to essential matters such as the tax system and the public health require further consideration and harmonization.
	Details of solution (removing manual signature legal environment)
Please briefly note current laws and their role in removing manual signature / enabling electronic exchange of trade-related documents.	The Italian legal environment in this field was established progressively through since 1997: the DPR n.513 of 1997 - adopted in execution of article 15 of the law n. 59 of 15 March 1997 and later transposed in the DPR n. 445/2000 (Unified Body of Laws on the administrative documentation) - was the first normative act which established the validity of electronic signature for the subscription of documents. The 1999/93/CE Directive on the electronic signature was adopted by Italy through the legislative decree n.10 of 23 January 2002. Another important act adopted by the Italian legislation is the so-called "Digital Administration Code" (Codice dell'Amministrazione digitale - CAD), introduced by the legislative decree n. 82 of 7 March 2005, modified and amended in the following years. Despite its name, the Code applies to both private and public bodies. The Italian normative process in the field is still ongoing.
	Practical experience in use of this legal environment
Resulting implementation in public sector (relating to trans-boundary trade)	Even if the electronic transition is not yet operational, some of the critical points have been overcome especially in terms of communication between the private sector and the public Admin with the clarification of some rules that made companies life quite uneasy. More results are awaited as the implementation of the electronic system will go through different stages of development starting from the customs clearance operations, standard definition and implementation.

Contact details

Italian Trade Commission (ICE):

- Giovanna Chiappini Carpena, email : g.chiappinicarpena@ice.it
- Simonluca Dettori, email: s.dettori@ice.it
- Anna Belmonte, email: a.belmonte@ice.it
- Claudia Manghisi, email: c.manghisi@ice.it

Italian Economic Development Ministry :

- Graziano Severini, email: g.severini@mise.gov.it

Japan:
Japan Association for Simplification of International Trade Procedures (JASTPRO)

	Business / Trade context (very brief)
Please describe the business / trade context / need that was being addressed when you decided to move from physical to electronic signature. Why was this being put in place? What specific issues were being addressed?	The main objective has been the facilitation and simplification of business process. For this, information and communication technology (ICT) is used for exchange of information between consumer, business and government.
What types of trade documents were involved – be specific/ authenticated?	All information exchanged has to integrate details of who provided the information. The ways to identify this party may vary depending on the contents and the intended usage purpose of the information. 1) In certain business to government exchanges (B2G) for example, a user will log-in to NACCS using a digital certificate issued by NACCS Inc. NACCS stands for 'Nippon (Japan) Automated cargo and port consolidated system' which is a national single window for export and import related procedures (B2G and some part of business to business [B2B] done in domestic trade). (http://www.naccs.jp/e/index.html) 2) In case of B2B data exchange by e-mail, for example, a usual business procedure is to specify the name/company addressed at the top of e-mail contents and to put a name/company name / etc. at the bottom which may clarify from who to whom the e-mail was sent. Just as a guidance, the Ministry of Internal Affairs and Communications issued an official report in which it suggests to use S/MINE when sending e-mails to guard against identity-spoofing problems. This is not a regulation and not yet commonly used in Japan. 3) In case of B2B business, documents (irrespective of paper, fax or PDF) are sent usually with a manual signature accompanied by information of his title and company name, typed or stamped. A manual signature is often used in international trade. A (manual) signature certificate, if required by business partners, can be applied and can be issued by many organizations such as chambers of commerce and industry in Japan. Just for information, for domestic trade, a personal stamp (or 'seal') of an individual is often used; alternatively, a company stamp is used. The certificate of the seal (rendering the personal stamp official), if required, is applied to and issued by the Legal Affairs Bureau.
Are there trade documents which do not legally require a signature?	Skipped.
	Legal context
Type of legal system	All laws, ordinances, regulations, rules have to be written. Jurisprudence will be for preparing how to apply to actual cases based on the written ones.
What is the fastest that a legally	Skipped.

enabling environment can be created?	
Environment for adding/amending laws	The constitution is the highest level of laws which can be altered by a vote in the Diet (Japanese Parliament) then by voting of the nation according to the provisions of the constitution. Under the constitution, a law is proposed to the Diet by the Cabinet, by members of the House of Representatives or by members of the House of Councillors. Under the constitution and laws, the levels of responsibility vary according to geographical levels (national, prefectures [regions], cities, etc.); correspondingly, ordinances/rules/regulations can be issued at each level.
	Consultation / Development (transition to electronic environment)
What considerations needed to be addressed before passing any laws creating the legally enabling environment?	In general, it is important to involve all key players when drafting a new law or amending a law. The responsible ministry or government agency usually prepares a table for discussions, outlining the related legal or operational issues. They invite key players to comment; these may include other related ministries, government agencies, private sector, experts with business/technical experience, scholars, etc. This table can be divided into sub working groups according to the business areas and/or the levels of detail. For example, the Ministry of Finance studied the possibilities of providing documents (including the invoice) to customs via the NACCS single window via PDF transmissions and/or via a data transmission function. After discussions with the private sector, the new function is available from October 2013. Again the identification of the sender is confirmed by the user-id for NACCS as explained in the above answer.
How was the private sector involved in the process (public outreach, commentary period, etc.)?	Same as above comment.
Were there any unexpected obstacles or complications that needed to be addressed?	Detailed and concrete explanation is skipped.
	Details of solution (removing manual signature legal environment)
Please briefly note current laws and their role in removing manual signature / enabling electronic exchange of trade-related documents.	1) Digital signature (PKI): 'Act on Electronic Signature and Certification Business' (Act No.102 of 31 May 2000) into force on 1April 2001. This act includes 'Definition of the term Electronic Signature and Authentication' and that the Specified Certification business needs accreditation from the competent ministries. Competent ministries are the Ministry of Internal Affairs and Communications, the Ministry of Justice and the Ministry of Economy, Trade and Industry. Under the above law, business process using PKI is more and more widespread in Japan as it is considered cost effective in domestic business. It is not legally compulsory that PKI should be used in B2B transactions. This PKI is supported by Japan government and its scope is to cover domestic business. PKI process between consumer and government is called 'GPKI: Government Public key Infrastructure' whose operation started in April 2001.

2) A law concerning the archiving and stocking of document in electronic media (so called e-document law) became effective on 1 April 2005. (Act of No.149 and No.150 in 2004). This law allowed certain documents which previously had to be archived/stored in their paper form to use electronic media instead, either in an electronic original (if the original was created electronically) or the scanned image of the paper document.

3) Nippon Automated Cargo and Port Consolidated System (NACCS), National Single Window in Japan:

Electronic business process using NACCS has been increasing, replacing the manual processing.

The Special Law of Customs Procedures for Air Cargo was changed to the "Act on Processing, etc. of Business Related to Import and Export by Means of Electronic Data Processing System (NACCS Special Law)" in 1991.

Sea Cargo related process using Sea-NACCS started in 1991.

The Special Law of Customs Procedures through the Electronic Data Processing System was changed to the "Act on Special Provisions for Customs Procedure by Means of Electronic Data Processing System" (privatization of the incorporated administrative agency NACCS inc.) in 2008.

This reform was done with a view of promoting an efficient import/export related operation under the new generation of Single Window in Japan. Not only Government (not only Customs but also other government agencies), carriers, forwarders, traders are exchanging information via NACCS.

(http://www.naccs.jp/e/aboutcenter/history.html)

Practical experience in use of this legal environment

Resulting implementation in public sector (relating to trans-boundary trade)

Please refer to the comments in above question.

Remark: All above explanation is non-exhaustive and subject to update/correction by experts from relevant sectors.

Contact details

Reported by Mitsuru Ishigaki

Email: m-ishigaki@jastpro.or.jp

Republic of Korea:
National IT Industry Promotional Agency (NIPA)

	Business / Trade context (very brief)
Please describe the business / trade context / need that was being addressed when you decided to move from physical to electronic signature. Why was this being put in place? What specific issues were being addressed?	Legally enabling environment of electronic documents provides great innovative values in business and trade. The paperless policy was facilitated in both the legal and technical context. For the paperless transition in society, the authentication of e-documents, from its creation to its disposal, is a critical issue.
What types of trade documents were involved – be specific/ authenticated?	Three types of trade documents (Letter of Credit, e-Negotiation Application, e-Bill of lading) have the legal obligation of authentication (under the Electronic Trade Facilitation Act).
Are there trade documents which do not legally require a signature?	Most e-trade documents are generally signed for the purpose of protection from probable dispute, although it's not a legal obligation (under the Electronic Trade Facilitation Act).
	Legal context
Type of legal system	Civil Law, General Law, Commercial Law.
What is the fastest that a legally enabling environment can be created?	Legal recognition in General Law such as 'Digital Signature Act 'and 'Framework Act on Electronic Document and Electronic Commerce'.
Environment for adding/amending laws	'Framework Act on Electronic Document and Electronic Commerce' was added to the legal system regarding authentication. Some civil and commercial laws were amended to stipulate the legal effect of e- documents in each domain area.
	Consultation / Development (transition to electronic environment)
What considerations needed to be addressed before passing any laws creating the legally enabling environment?	• Analysis of the obstacles (practices, customs or jurisdiction etc.) for paperless transition. o Review legal scheme and electronic environment. • Consultation about the authentication of e-document o Define the trustworthy environment using e-document as legal source; o Research a trusted solution to minimize the least risks, errors and uncertainties given in the electronic environment; o Plan strategies as a cooperative model between private and public sector (especially, the third party is easy to prove it neutrally and the public sector can organize the overall scheme of trusted system). • Development of a trusted system. o Develop regulations and restrictions; o Develop a technical guidance needed to ensure a trusted system.

	• Facilitation of the Trusted Third Party (TTP) service ○ Facilitate that TTP or private sector provide the service in compliance with regulations and technical guidance; ○ Facilitate that public sector assesses regularly the quality of trusted systems and provides the audit.
How was the private sector involved in the process (public outreach, commentary period, etc.)?	The private sector applies for TTP services in compliance with technical guidelines. Public sector evaluates its compliance and designates it as a TTP.
Were there any unexpected obstacles or complications that needed to be addressed?	There is no mutual recognition of authentication beyond national PKI among cross-border e-transactions.
	Details of solution (removing manual signature legal environment)
Please briefly note current laws and their role in removing manual signature / enabling electronic exchange of trade-related documents.	• **Digital Signature Act** (1999), (2001),(2005),(2008),(2010), (2011) ○ Purpose of legislation is to improve security and reliability of e- documents. It provides the authentication, identification and integrity to facilitate e- commerce, e-government and good life of citizens. ○ This act refers to the Model Law of e-Signature (MLES) of UNCITRAL. ○ This act requires legal effect by utilizing digital signature, certified authority system of digital signature and etc. ○ Korea Information Security Agency (KISA) organizes certified authority system. ○ This act establishes a process for interested groups to: ▪ keep control of the protection from kinds of risks such as cyber infringement, unaccepted access and disaster; ▪ issue a certificate to identify a particular person by hash algorithm; ▪ record the activities of users' certificates and its certified system. • **Framework Act on Electronic Document and Electronic Commerce** (1999),(2002),(2005),(2006), (2007), (2008), (2009), (2012) ○ Purpose of this act is to stipulate legal relations of e-commerce, ensuring its security and reliability, and laying the foundation for its promotion. ○ This act refers to Model Law of e-Commerce (MLEC) of UNCITRAL. ○ This act requires the legal effect by utilizing e-document, trusted third party repository, trusted electronic address and certification of communication, etc. ○ NIPA (National IT Industry Promotion Agency) organizes overall scheme of trusted systems regarding electronic documents and electronic commerce.

- This act establishes the process and rules for interested groups to :
  - keep control of the protection from the kinds of risks such as cyber infringement, unaccepted access and disaster;
  - issue certificates of authenticity of e-document;
  - issue certificates of communication of e-document.

- **Electronic Government Act** (2010), (2011), (2012)
  - Its purpose is for required federal agencies to provide e-government services and manage administrative documents electronically.
  - This act refers to the Digital Signature Act (above).
  - This act requires the electronic administrative document and Electronically Stored Information (ESI) format.
  - This act establishes procedures and rules for federal agencies to:
    - request a civil appeal in electronic format;
    - confirm the civil affair document and required documents in electronic format;
    - confirm the identification of a client of a civil affair under Digital Signature Act;
    - keep control of administrative documents in electronic format;
    - stipulate the legal effect of using the electronic documents.
- **Electronic Financial Transaction Act** (2006), (2007), (2008), (2010), (2011), (2012)
  - The purpose of this act is to contribute to ensuring the security and reliability of e- financial transactions by clarifying their legal relations and to promoting financial conveniences for people and developing the national economy by creating a foundation of sound development of electronic financial industry.
  - This act refers to the Digital Signature Act (above).
  - This act outlines the rights and responsibilities of the person involved in electronic financial transactions, electronic money and the legal effect of electronic payment etc.
  - This act establishes some regulations, guidelines and procedures for financial agencies and financier to:
    - access the system media and confirm the identification and permission of a client and the intent of transaction;
    - handle the least errors and/or accidents during e-financial transactions.
- **Act on the Use, etc. of Electronic Document in Civil Litigation** (2010)
  - Its purpose is to promote dematerialization of civil litigation, etc. and enhances swiftness and transparency thereof, thereby contributing to realizing people's rights, by prescribing fundamental principles and procedures concerning the use of electronic documents in civil litigation, etc.

- This act refers to the Digital Signature Act and the Electronic Government Act (above).
- This act requires digital signature used in judicial cases.
- This act establishes procedures for 'Office of Court Administration to:
  - execute civil litigation by electronic documents;
  - register and submit electronic documents to a court;
  - record the cases of civil litigation in electronic format.

- **Electronic Trade Facilitation Act** (2005),(2007), (2008), (2009), (2011)
  - The purpose is to simplify trade procedures, rapidly circulate trade information and reduce costs of handing trade business by creating grounds for electronic trade and facilitating its wide use.
  - This act refers to the Digital Signature Act and the Framework Act on Electronic Document and Electronic Commerce (above).
  - KITA (Korea International Trade Association) organizes electronic trade portal called as 'uTraceHub'.
  - This act establishes the requirements of electronic trade documents, electronic trade service providers and electronic trade portals.
  - This act establishes rule that electronic trade portal provides following services:
    - notice about the Letter of Credit;
    - e-Negotiation Application;
    - issuance of e-Bill of Lading.
  - This act establishes the process for a trader to manage electronic trade document such as:
    - archive e-trade documents;
    - certificate of authenticity.
- **Value-Added Tax Act** Act No. 9268(2008)
  - NTS (National Tax Service) organizes the value-added tax system.
  - This act refers to the 'Digital Signature Act' and the 'Framework Act on Electronic Document and Electronic Commerce' (above).
  - This act establishes the requirements for e-tax bills documents.
  - This act establishes a process for business enterprise to
    - keep control of e-tax bills in electronic format;
    - declare e-tax bills to NTS via Internet.
- **Regulation Implementation of the Provisions of the Commercial Act Regarding Electronic Bills of Lading**, Presidential Decree No.22467 (2010)
  - The purpose is to provide delegated powers pursuant to Article 862 of the Commercial Act
  - This act refers to Digital Signature Act (above).
  - This act establishes the requirements for register agencies and

electronic registries of electronic bills of lading.

- This act establishes the process for trading companies to :
  - issue electronic bills of lading;
  - transfer electronic bills of lading.

Practical experience in use of this legal environment

Resulting implementation in public sector (relating to trans-boundary trade)

The '*digitally signed document*' sent in electronic transactions can be considered as the legal source under the Digital Signature Act and the Framework Act on Electronic Document and Electronic Commerce. However there are some implementing difficulties because digital signatures are only valid for a certain period.

For the purpose of 'paperless transitions' in society, in Korea there are two practical solutions such as Trusted Third Party Repository (TTPR) and 'Trusted address and sharp (mail) service' in order to reduce the probable disputes with cause for electronic format or transactions. These are the trusted service developed in a model of Private Public Partnership (PPP) guaranteed by the national laws.

- **TTPR (Trusted Third Party Repository)**

There is a big hurdle for paperless transitions. Even if the electronic document is properly produced during e-business, people tend to preserve it in paper format as legal evidence. Because it is difficult to identify its original or changeable source, a solution is needed. TTPR provides an easy way to guarantee the '*authenticity of e-documents*' in compliance with legal requirements by expertise of archive (and disposal) for the long term.

In 2006 the 'Framework Act on Electronic Document and Electronic Commerce' was revised to state legal grounds (Article 5-1, 31) that a TTPR can issue the certificate of authenticity for archived e-documents in TTPR. In addition, this law includes its regulations, technical guidelines and audit scheme needed to guarantee a trusted system.

In Korea there are 6~7 TTPRs for archiving. TTPRs are creating new value added services replacing previously paper based work such as clients' subscription procedure at insurance companies, credit card companies, stock brokers and banks, the clients' admission/leaving procedure at hospitals and clinics, lots of issuance procedures at universities, educational institutes or test laboratories and so on. And also it new service model in cloud environments could be expected.

- **Trusted address and sharp (mail) service**

'*The signed document during e-transactions* can be considered as a legal source. However after finalizing the valid period of electronic signature or after getting rid of the electronic signature, it is difficult to prove the business context – e-documents resulting from reliable communications with identified partners. Therefore, it is needed to realise a provable solution in advance to verify its authentication – '*the e-document born through reliable communications*'.

In 2012 the Framework Act on Electronic Document and Electronic Commerce' was revised to state legal grounds about the trusted address (Article 18- 4) and trusted communication system. Trusted address, compared with e-mail address, guarantees the reliable communications for legal effect. TTP (Trusted Third Party) provides the trusted communications

called 'sharp mail service' by using trusted address. Although it could be compared with 'registered mail', the message handling is different.

In Korea there are now 4~5 TTPs for trusted communication service. It can provide trusted services applied to kinds of business models in government to consumer, business to business, consumer to consumer, business to consumer and so on. However, this service is not yet incorporated with TTPR. The further combination of these services could provide a way to prove the authentication of e-document from its creation to archive (and disposal).

- **E-Customs and e-Trade Services**

In Korea, there are two portal services; 'UNI-PASS' and 'uTradeHub'. The paperless trade service portal called 'uTradeHub' has been operated by KITA (Korea International Trade Association) since 2003. And electronic customs-clearance portal system called 'UNI-PASS' (previously, Internet Clearance 2005 and EDI Auto Clearance 1992) has been serviced by Korea Customs Service (KCS) since 2010.

These portal services process electronically overall customs and trade procedures such as customs-clearance, cargo management, duty collection, marketing, checking conditions, foreign exchange, logistics and payment. For handling the above activities, these systems are interlinked with networks of trading parties concerned such as domestic banks, foreign banks, the Korea Financial Telecommunications and Clearings Institute, the Korea Customs Services and logistics companies.

For international trade, there are some difficulties of digitally signed documents depending on NPKI (National Public Key Infrastructure). In order to handle it, digital signatures will need to be recognized mutually with other countries and its legal effect should be mutually recognized in forth coming days.

Contact details

NIPA (National IT Industry Promotion Agency)

Jasmine Jang, email: jasmine@nipa.kr

Turkey:
Ministry of Customs and Trade

	Business / Trade context (very brief)
Please describe the business / trade context / need that was being addressed when you decided to move from physical to electronic signature. Why was this being put in place? What specific issues were being addressed?	The establishment of an e-signature system provides electronic signing of customs declarations, that results in a safer and faster international trade.
What types of trade documents were involved – be specific/ authenticated?	Customs declarations (Single Administrative document) Transit Accompanying Document (NCTS).
Are there trade documents which do not legally require a signature?	They all require a customs administrations' signature procedure.
	Legal context
Type of legal system	The electronic signature Law of 2004.
What is the fastest that a legally enabling environment can be created?	By using electronic systems
Environment for adding/amending laws	
	Consultation / Development (transition to electronic environment)
What considerations needed to be addressed before passing any laws creating the legally enabling environment?	
How was the private sector involved in the process (public outreach, commentary period, etc.)?	Private sector is able to use electronic signatures as well.
Were there any unexpected obstacles or complications that needed to be addressed?	No.
	Details of solution (removing manual signature legal environment)
Please briefly note current laws and their role in removing manual signature / enabling electronic exchange of trade-related documents.	The above mentioned Law provides to use both of them.
	Practical experience in use of this legal environment
Resulting implementation in public sector (relating to trans-boundary trade)	It's crucial for simplification of trade.
	Contact details
	Ministry of Customs & Trade
	DG for Risk Management & Control, Department of e-customs

United States of America:
United States Customs and Border Protection (CBP)

	Business / Trade context (very brief)
Please describe the business / trade context / need that was being addressed when you decided to move from physical to electronic signature. Why was this being put in place? What specific issues were being addressed?	The greatest need addressed in the decision to move from a physical signature to electronic signature was the legislative mandate (see reference to the Mod Act below) to manage business improvements in customer service, trade facilitation, and compliance with regulations and tariffs. The ultimate goal for CBP was improved border enforcement and trade compliance under U.S. laws and regulations, while simultaneously creating greater efficiencies and facilitation of legitimate trade and travel.
What types of trade documents were involved – be specific/ authenticated?	The importation of goods into the United States, is generally a two-part process consisting of 1) filing the cargo release documents necessary to determine whether merchandise may be released from CBP custody, and 2) filing the entry summary documents that pertain to merchandise classification, duty, taxes, and fees. For the most part, the documents involved were for purposes of entry summary. Currently, over 99 percent of all entry summaries are filed electronically. The only documents CBP still collects which would require wet ink signatures are those forms which CBP collects on behalf of other agencies, entry papers (i.e., consumption entry and the invoice), and any classified documents.
Are there trade documents which do not legally require a signature?	See response above. Everything (with the exception of entry papers and classified documents) that is filed electronically with CBP gets an electronic signature.
	Legal context
Type of legal system	Common Law.
What is the fastest that a legally enabling environment can be created?	The fastest path to a legally enabling environment is via legislation and/or Presidential Executive Order. The legislation will usually provide a period of time by which the requested change must take place. It is the responsibility of federal agencies to make the necessary revisions/updates to their regulations to implement the legislation.
Environment for adding/amending laws	Security/health based legislation is "fast tracked" as necessary. Other legislation that does not address security/health based concerns follows a more traditional path. Once a bill is introduced, it is sent into the appropriate subject matter Committee (separately, in both the House and Senate) for review. The respective Committee can choose to table the bill or make recommendations and put it to a vote. This is the time when the bill will be shared with other organizations for feedback/input. Separately, the Senate and the House will debate the bill, offer amendments and cast votes. If the bill is defeated in either the Senate or the House, the bill dies. It is not unusual for the House and the Senate to pass the same bill, but with different amendments. In these cases, the bill goes to a conference committee to work out differences between the two versions of the bill. Then the bill goes before all of Congress for a vote. If a majority of both the Senate and the House votes for the bill, it goes to the President for approval. If the President approves the bill and signs it, the bill becomes a law. However, if the President disapproves, he can veto the bill by refusing to sign it.

	Congress can try to overrule a veto. If both the Senate and the House pass the bill by a two-thirds majority, the President's veto is overruled and the bill becomes a law. Once the law is enacted the Administration will usually provide a broad framework of guidance to ensure implementation of the legislation.
	Consultation / development (transition to electronic environment)
What considerations needed to be addressed before passing any laws creating the legally enabling environment?	Prior to advocating a legally enabling environment that will promote or require a transition to an electronic environment; the agency must conduct a thorough review of the paper based processes to determine whether any are suitable for conversion to electronic signature. If a determination is made that some processes would be suited for conversion, the agency must assess whether there are any existing gaps in the paper based process that can be mitigated by conversion to electronic. An additional consideration is the level of protection that will be required for the government and the potential of risk or liability for the agency. Also important is a review of the current legal schema to determine whether there are any existing legislative and/or regulatory restrictions. Per guidance from the Office of Management and Budget (OMB), agency considerations of cost, risk and benefit, as well as any measures taken to minimize risks, should be commensurate with the level of sensitivity of the transaction (i.e., low risk information processes may need only minimal safeguards while high risk processes may need more). Impact to stakeholders must also be assessed and consultations with all impacted parties must be coordinated.
How was the private sector involved in the process (public outreach, commentary period, etc.)?	Yes, the private sector must certainly be part of the process. Government should, in consultation with other agencies and private sector, develop practical guidance on the legal considerations related to agency use of electronic signatures so that appropriate assessments can be made in terms of goals and acceptance of those goals by all vested parties. In CBP, any change from a paper based process to an electronic process is precipitated by a legal notice announcing to the trade community the changes CBP would like to implement. The trade community is given an opportunity to provide written comments. In the interim CBP reaches out to all the impacted industry sectors and coordinates outreach/engagement prior to any decision making.
Were there any unexpected obstacles or complications that needed to be addressed?	Obstacles include differing legislative mandates across federal agencies; divergent trade needs; lack of adequate resources (both financial and human) to support the necessary changes, and technical upgrades that must be made on both sides (government and trade) to support the needed changes.
	Details of solution (removing manual signature legal environment)
Please briefly note current laws and their role in removing manual signature / enabling electronic exchange of trade-related documents.	• Computer Security Act of 1987, Pub. L. No. 100-235, 40 U.S.C. 1441: Legislation passed to improve the security and privacy of sensitive information in Federal computer systems and to establish a minimum acceptable security practices for such systems. Requires the creation of computer security plans and the appropriate training of system users or owners where the systems house sensitive information. • Paperwork Reduction Act of 1995: Required each Federal agency to establish a process, independent of program responsibility, to evaluate proposed collections of information; manage information resources to reduce information collection burdens on the public; and ensure that the public has timely and equitable access to information products and services.

- Government Paperwork Elimination Act (GPEA), Pub. L. No. 105, 1998, codified as 44 U.S.C. 350: Required federal agencies to provide for the option of the electronic maintenance, submission, or disclosure of information, when practicable, as a substitute for paper; and the use and acceptance of electronic signatures when practicable).

- Electronic Records and Signatures in Global and National Commerce Act (E-SIGN), Pub. L. 106-229, 2000, 15 U.S.C. 7001 (E-SIGN): Eliminates legal barriers to the use of electronic technology to form and sign contracts, collect and store documents, and send and receive notices and disclosures. E-SIGN applies broadly to Federal and state statutes and regulations governing private sector activities. Laws and regulations that are primarily governmental and do not relate to business, commercial or consumer transactions are not within the scope of this legislation; they are instead addressed by the Government Paperwork Elimination Act.

- U.S. Customs and Border Protection Specific Empowering Legislation:

  - Customs Modernization Act (the "Mod Act"), Pub. L. 103-182, December 8, 1993, amending title 19 U.S.C. 1508, 1509 and 1510, formally Title VI of the North American Free Trade Agreement Implementation: one of the most sweeping regulatory reform legislations, amending the Tariff Act of 1930 and related laws. Introduced two new Customs concepts known as "informed compliance" and "shared responsibility." These concepts are premised on the idea that in order to maximize voluntary compliance with Customs laws and regulations, the trade community needs to be clearly and completely informed of its legal obligations. An overarching goal of the Mod Act was to place a greater responsibility upon the trade community to exercise "reasonable care" in complying with import requirements.

  - The principal section of the Mod Act addressing automation was codified under 19 U.S.C. 1411-1414 (promulgated by CBP under the National Customs Automation Program (NCAP) testing provision, 19 CFR 101.9). NCAP provides U.S. Customs and Border Protection with an automated electronic system to process commercial importations and facilitate business improvements with the trade community.

  - Among other statutes, the Mod Act amended Section 484 of the Tariff Act of 1930. Added provision (d) (1) providing that: Entries shall be signed by the importer of record, or his agent, unless filed pursuant to an electronic data interchange system. If electronically filed, each transmission of data shall be certified by an importer of record or his agent, one of whom shall be resident in the United States for purposes of receiving service of process, as being true and correct to the best of his knowledge and belief, and such transmission shall be binding in the same manner and to the same extent as a signed document. The entry shall set forth such facts in regard to the importation as the Secretary may require and shall be accompanied by such invoices, bills of lading, certificates, and documents, or their electronically submitted equivalents, as are required by regulation.

  - The Mod Act also allowed for the submission of information through a CBP authorized electronic data interchange system in all statutes that previously required documents or forms so that the electronic transmission of data could replace submission of the documents. Moreover, the Mod Act did not specify any one system purposefully so we can use any system we approve.

- Under the authority of the Mod Act, we also allow approved parties to convert and store original paper documents into an electronic medium and store them electronically if CBP approves an alternative storage method.

- The Mod Act was subsequently amended by the Trade Act of 2002 to include, among other things, the following change (2002—Subsec. (b). Pub. L. 107–210): Struck out a former second sentence which read as follows: "Participation in the Program is voluntary." Inserted a new second sentence which now reads: The Secretary may, by regulation, require the electronic submission of information described in subsection (a).

- Security and Accountability for Every Port Act of 2006 (P.L. 109-347 (Section 405), October 13, 2006, (SAFE Port Act): Required the Secretary of the Treasury to oversee an interagency initiative to establish a "single portal system," to be known as the" International Trade Data System" (ITDS) and to be operated by the United States Customs and Border Protection. This unified data system is to electronically collect and distribute import and export data required by government agencies that license or clear the import or export of goods.

Practical experience in use of this legal environment

Resulting implementation in public sector
(relating to trans-boundary trade)

There are a number of ways in which CBP is currently successfully using electronic signatures.

- The ACE Secure Data Portal is a web-based capability providing a single, centralized on-line access point to connect CBP, the trade community and government agencies. Once a Portal Account is established, trade members can electronically submit specified data and/or documentation/forms needed during the cargo importation process. ACE authenticates the electronic documents that it receives by comparing certain fields in the message to a user profile established at the time of registration. The profile includes, among other things, both the filer code and password chosen by the filer. This "trusted" profile is used during authentication (Port, Filer Code, password).

- The Document Image System (DIS) provides the trade community the ability to electronically submit imaged copies of specified documents and forms so they can be processed and stored electronically eliminating the need to process and store paper documents and forms.

- EDI data-transmissions (through ABI – Automated Broker Interface, for example) - Another method by which trade members can submit data to CBP. To use ABI, a brokerage or importer must request or already possess a "filer code." Once a filer code has been issued, the brokerage/importer must submit a Letter of Intent indicating intent to transmit data via EDI. Any party transmitting data with CBP must also sign an Interconnection Security Agreement (ISA). Data is transmitted using a Virtual Private Network (VPN), a means of communication from one computer to another over a public telecommunications network that relies on encryption to secure the content of transmissions.

Contact details

Josephine Baiamonte
Branch Chief, Change Management and Legal Policy, ACE Business Office
U.S. Customs and Border Protection, Email: josephine.baiamonte@dhs.gov

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Item 8 of the provisional agenda
Strategic directions and Programme of work

An integrated strategic framework for UN/CEFACT deliverables

Submitted by the UN/CEFACT Bureau for decision

Summary

UN/CEFACT's integrated strategy provides a framework for the development of its programme of work.

This document is a revision of "Towards an integrated strategy for UN/CEFACT" (ECE/TRADE/CEFACT/2006/5) and is aligned with the project-oriented management framework established at the Plenary's eighteenth session in February 2012. It is also consistent with the "UN/CEFACT structure, mandate, terms of reference and procedures" (ECE/TRADE/C/CEFACT/2010/15/Rev.5).

It is submitted to the twentieth Plenary for discussion and decision.

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Preamble

UN/CEFACT (United Nations Centre for Trade Facilitation and Electronic Business) is a global intergovernmental body of UNECE.

UN/CEFACT's vision is "Simple, Transparent and Effective Processes for Global Commerce". Its mission[1] is "to improve the ability of business, trade and administrative organizations, from developed, developing and transition economies, to exchange products and related services effectively".

Through its mandate, UN/CEFACT develops instruments[2] (e.g., recommendations, standards, and technical specifications) in support of trade facilitation and electronic business and undertakes a programme of work of global relevance that meets current and future demands as required by its mission.

UN/CEFACT's mission supports UN Millennium Development Goal 8 to "develop further an open trading and financial system that is rule-based, predictable and non-discriminatory and includes a commitment to good governance, development and poverty reduction – both nationally and internationally"[3].

The recent Agreement on Trade Facilitation adopted at the World Trade Organization's 9th Ministerial Conference in Bali, Indonesia, in December 2013 encourages Member States to follow best practice in the form of international standards and to participate in the review and development of international standards. UN/CEFACT can help to provide a focal point for coherence in the development of international standards in the field of trade facilitation and electronic business by cooperating with other relevant parties, including international, intergovernmental and non-governmental organizations.

I. Introduction

1. UN/CEFACT's efforts focus on facilitating national and international (cross-border) trade, by the simplification and harmonization of processes, procedures and information flows, particularly through the use of electronic business, with the goal of contributing to the growth of global commerce.

2. UN/CEFACT instruments:

- Are developed to lead towards measurable elimination of trade constraints and barriers;
- Address requirements of stakeholders from the private as well as the public sector, in a partnership;
- Are neutral in terms of technology choice;
- Reflect requirements by Member States from multiple regions;
- Contribute towards standardization within the Member States;

[1] See "UN/CEFACT Mandate, Terms of Reference and Procedures" (ECE/TRADE/C/CEFACT/2010/15/Rev.5) .

[2] UNECE Recommendations, UN/CEFACT business standards and technical specifications are often collectively referred to as "instruments" or "publications". The two phrases are used interchangeably throughout this document.

[3] UN Millennium Development Goals http://www.un.org/millenniumgoals/global.shtml, October 2010

- Do not duplicate, but enrich or add to, existing and comparable standards developed elsewhere;
- Seek to complement and be compatible with best practices for the latest (and state of the art) technological developments.

3. Within UN/CEFACT, experts from various business, trade, industry associations, national trade facilitation bodies, technology providers, standards development organizations and government sectors work together to deliver instruments that improve the ability of business, trade and administrative organizations, from developed, developing and transition economies, to trade goods and related services effectively.

4. Some UN/CEFACT instruments include: the United Nations Layout Key for Trade Documents, which is the international standard for the layout and content of trade documents; UN/EDIFACT, the international standard for Electronic Data Interchange for Administration, Commerce and Transport; XML messages (schemas), based on UN/CEFACT Core Component and Naming and Design Rule Technical Specifications, and the Core Component Library; numerous recommendations for the codification of trade information; and a set of recommendations to support the use and implementation of Single Windows for export and import procedures[4].

5. The integrated strategy[5] is consistent with the "UN/CEFACT structure, mandate, terms of reference and procedures" (ECE/TRADE/C/CEFACT/2010/15/Rev.5) and serves as a foundation for the biennial programme of work. As such the integrated strategy does not define specific work activities, instruments or projects[6].

II. Components of the Integrated Strategy

A. Trade facilitation

6. UN/CEFACT defines trade facilitation as the simplification, standardization and harmonization of procedures and associated information flows that are required to move goods and provide related services from seller to buyer and to make payments. (Trade Facilitation Strategy and Action plan for 2005-2007, TRADE/CEFACT/2005/6)

7. The fundamental purpose of trade facilitation is to simplify the trading process whether domestic or international. To achieve this objective trade facilitation aims at transparency in all commercial and regulatory rules concerning trade procedures in order to allow the trading community to prepare and comply.

8. Trade facilitation (especially in relation to the application of electronic business) can be broadly divided into three categories; simplification, harmonization and standardization:

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[4] All UN/CEFACT recommendations and standards are available for download free of charge on the website at: www.unece.org/cefact/recommendations/rec_index.html.

[5] The term 'integrated strategy' was used previously to express the coming together of the two streams of activities of UN/CEFACT: trade facilitation and electronic business. This document uses the term 'integrated strategy' to cover all activities of UN/CEFACT.

[6] Therefore, reference to work items and related sections of the previous version of this document (ECE/TRADE/CEFACT/2006/5) should not form part of this strategic document but may form part of a Programme of Work.

- Simplification is the means of streamlining trade procedures by removing redundant requirements and activities, and reducing the cost and burdens in administering the trade transaction.
- Harmonization is the means of aligning or rationalizing the information flows that accompany the movement of goods or services in the domestic marketplace, or in international transit especially at international borders.
- Standardization is the means for ensuring that the information required is consistent in both understanding and application[7]. Several international standards development organizations, consortia and communities develop standards concerning the description, definition, use and transfer of information related to international trade. UN/CEFACT cooperates with these organizations to fulfill its mandate and strives to avoid overlap and the duplication of work.

9. UN/CEFACT trade facilitation instruments help to achieve an integrated set of efficient and effective business processes, as well as optimizing the level of government control and oversight.

B. The International Supply Chain

10. The concept of an International Supply Chain encompasses the entire series of both domestic and international processes involved in trading goods and services. Any supply chain relies on the efficient execution of a series of processes extending from the seller to the buyer.

11. The supply chain ensures that goods are ordered, shipped and paid for while complying with regulatory requirements and supporting trade security. The model described in Figure 1 identifies the key commercial, logistical, regulatory and payment procedures involved in the international supply chain, and provides an overview of the information exchanged between the parties throughout its successive steps.

[7] A feature often referred to as "interoperability".

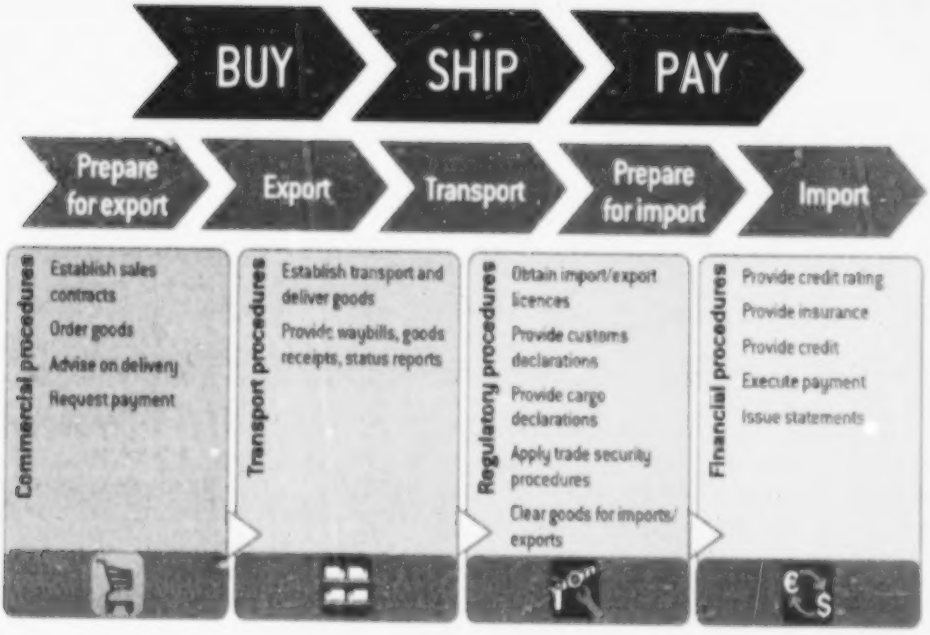

Figure 1. UN/CEFACT model of an international supply chain

C. Aligning Business Processes

12. **Electronic business** is a generic term covering digital information definition and data exchange within and between enterprises, including with customers[8].

13. Trade can be facilitated by the application of electronic business tools that enable effective management of supply chains. Electronic business requires aligning the processes and related digital information (in the form of electronic messages) exchanged between the parties involved.

III. UN/CEFACT Work Activities

14. The objective of UN/CEFACT is to develop and identify practical instruments that address stakeholder requirements. These could be applicable to commercial, transport, regulatory and financial procedures in both the public and private sector.

15. The UN/CEFACT integrated strategy focuses on three work areas for ensuring the suitability of Trade Facilitation instruments:

- **Identification:** Identify stakeholder business requirements for trade facilitation (especially in relation to the application of electronic business).

[8] Memorandum of Understanding between IEC, ISO, ITU and UNECE concerning standardization in the field of Electronic Business

- **Delivery:** Define, maintain and support instruments in response to trade facilitation needs (especially in relation to the application of electronic business) through specific projects following an Open Development Process[9].
- **Promotion:** Promote awareness, and provide education on the use and adoption of UNECE-UN/CEFACT and non UN/CEFACT Trade Facilitation instruments.

16. UN/CEFACT undertakes projects to develop and maintain trade facilitation instruments using an Open Development Process[10].

17. Biennial Programmes of Work are approved by the UN/CEFACT Plenary and serve as a framework for specific projects to be undertaken.

18. The Programme of Work will broadly focus on the following work areas:

Key work area I: Identification

- Identify trade facilitation needs and priorities working towards the elimination of constraints.
- Cooperate with other organisations to ensure that UN/CEFACT fulfils its mandate without overlap and the duplication of work.
- Monitor technological and methodological developments that support development and deployment of these instruments.
- Regularly review and, if necessary, propose maintenance of trade facilitation instruments.

Key work area II: Delivery

- Develop, validate and maintain trade facilitation recommendations and standards addressing identified trade facilitation needs and priorities.
- Analyse, align and document key elements of international trade and business procedures.
- Ensure the quality of methodologies, techniques and instruments supporting trade facilitation.
- Work closely with the UNECE Executive Committee and other bodies of the UNECE and the UN, such as the United Nations Commission on International Trade Law (UNCITRAL) and the United Nations Conference on Trade and Development (UNCTAD).
- Liaise / coordinate with other international organizations such as the World Trade Organization (WTO) and the World Customs Organization (WCO), as well as standards development organizations and consortia across sectoral, regional and subregional country groupings;

[9] Revised at 18th Plenary in February 2012:
http://www.unece.org/fileadmin/DAM/cefact/cf_plenary/plenary12/ECE_TRADE_C_CEFACT_2010_24_Rev2E_UpdatedOpenDevelopmentProcess.pdf

[10] Revised at 18th Plenary in February 2012:
http://www.unece.org/fileadmin/DAM/cefact/cf_plenary/plenary12/ECE_TRADE_C_CEFACT_2010_24_Rev2E_UpdatedOpenDevelopmentProcess.pdf

Key work area III: Promotion

- Promote the use of UN/CEFACT instruments and a better understanding of trade facilitation activities through awareness-building and outreach, especially with countries with transition, developing and least-developed economies.
- Use UN/CEFACT communications channels to actively promote the suitability of UN/CEFACT instruments for trade facilitation.

Definitions

Business: A series of processes, each having a clearly understood purpose, involving more than one organization, realized through the exchange of information and directed towards some mutually agreed upon goal, extending over a period of time. (Open-EDI Reference Model Standard – ISO/IEC 14662)

Electronic Business: A generic term covering digital information definition and data exchange within and between enterprises, including customers. (Memorandum of Understanding between IEC, ISO, ITU and UNECE concerning standardization in the field of Electronic Business)

Procedure (or Process): Instructions, practices and formalities involved in collecting, presenting, communicating and processing data required to fulfil a goal. (Facts about the Working Party on Facilitation of International Trade Procedures TRADE/WP.4/Inf.91)

Trade: The ability of business, trade and administrative organizations to exchange products and relevant services effectively. (Mandate, terms of Reference and Procedures for UN/CEFACT, ECE/TRADE/C/CEFACT/2010/15/Rev.3.)

Trade procedures: the activities, practices and formalities involved in collecting, presenting, communicating and processing data required for the movement of goods in trade.

Trade Facilitation: The simplification, standardization and harmonization of procedures and associated information flows required to move goods or services from seller to buyer and to make payments.

Trade Facilitation instruments: UN/CEFACT defines TF instruments as Procedures, Policies (e.g., Single Window), Business Requirement Specifications, Code lists, UN/EDIFACT and XML libraries, Standardized messages for UN/EDIFACT and/or XML.